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The first of these is the fact that the State is a legal entity, and as such it is capable of entering into contracts, and of suing and being sued. This is a fundamental principle of the law, and it is one which is recognized by all civilized nations. The second is the fact that the State is a sovereign entity, and as such it is not subject to the control of any other power. This is also a fundamental principle of the law, and it is one which is recognized by all civilized nations. The third is the fact that the State is a permanent entity, and as such it is not subject to the changes of time and circumstance. This is also a fundamental principle of the law, and it is one which is recognized by all civilized nations.

The fourth is the fact that the State is a moral entity, and as such it is capable of committing crimes, and of being held responsible for its actions. This is a principle which is not always recognized, but it is one which is essential to the proper functioning of the law. The fifth is the fact that the State is a political entity, and as such it is capable of exercising power, and of being held accountable for its use of that power. This is also a principle which is not always recognized, but it is one which is essential to the proper functioning of the law.

The sixth is the fact that the State is a social entity, and as such it is capable of creating laws, and of enforcing them. This is a principle which is not always recognized, but it is one which is essential to the proper functioning of the law. The seventh is the fact that the State is a legal entity, and as such it is capable of entering into contracts, and of suing and being sued. This is a principle which is not always recognized, but it is one which is essential to the proper functioning of the law. The eighth is the fact that the State is a sovereign entity, and as such it is not subject to the control of any other power. This is also a principle which is not always recognized, but it is one which is essential to the proper functioning of the law.

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This Issue in Brief

Nearly all collective agreements provide for the observance of certain holidays, but there are very great differences as regards the number and character of the holidays to be observed, and also as regards the matter of pay for such idle days. The number of paid holidays varies from 3 to 13. Page 1.

The monthly fluctuations in employment in the mines and quarries of Ohio from 1914 to 1929 show how serious the problem of irregular employment may be even in good business years. Page 12.

The first comprehensive study of wages and hours of labor in the Portland cement industry in the United States, made by the Bureau of Labor Statistics, is summarized on page 157. It shows that in the latter part of 1929 full-time hours per week averaged 52 for females and 60.8 for males and for both sexes combined. Average earnings per hour for males were 51.8 cents, for females 38.9 cents, and for both sexes combined, 51.7 cents, average full-time weekly earnings being \$31.49, \$20.23, and \$31.43, respectively.

A decrease of 2.8 per cent in the general cost of living in the United States occurred between December, 1929, and June, 1930, according to the semiannual survey of this subject recently completed by the Bureau of Labor Statistics. A decline of 6.4 per cent in food prices was primarily responsible for the decrease in cost of living, but all other major groups of items, except the miscellaneous group, showed some decline during this six-month period. Page 248.

Legislation of interest to labor was passed by every State legislature which convened in 1929 either in regular or special session (except Louisiana and Mississippi). The outline of this legislation on page 81 gives an idea of the number and types of acts passed.

A plan for the alleviation and the prevention of unemployment is being put in force in the plants of the General Electric Co. The plan covers various measures for the stabilization of employment, such as careful planning to avoid seasonal fluctuations, carrying out of maintenance work during slack periods, and a careful system of hiring in periods of business activity. The unemployment pension plan is based on equal contributions of the employees and the company during normal periods and when an unemployment emergency exists the fund is maintained through contributions of all employees who are receiving 50 per cent and over of their average full-time weekly or monthly earnings, including clerical and supervisory staff and officials. Unemployment benefits amount to 50 per cent of the average earnings with a maximum of \$20 per week. Page 31.

Laws authorizing the formation of consumers' cooperative societies are now in effect in 34 States and Alaska. Although few of these laws are new, many amendments have been made in the past 10 years. These amendments have been almost entirely in the direction of liberalizing the laws, enlarging the powers of the societies organized under them, and raising the cooperative standards to be met. The provisions of the individual laws vary rather widely, but an attempt is made to present a picture of such legislation as it now stands. Page 100.

Wages are considerably lower in the South than in the rest of the country, according to a study recently published by the University of North Carolina. The difference is greatest in the case of agricultural workers and least in the organized trades. In July, 1929, the daily wages of casual agricultural laborers, not boarded, averaged \$1.55 for the 10 southern States studied, which was only 48 per cent of the average of \$3.25 for the remainder of the country, whereas a compilation of median hourly wage rates in various organized trades as of May 15, 1929, for 8 southern cities and 32 other cities located in different parts of the remainder of the country, showed that the southern rate varied from 75 per cent of the rate elsewhere in the case of carpenters to 90.9 per cent for plumbers. Page 179.

Massachusetts by an act approved May 28, 1930, became the twelfth State to provide an old-age pension system. The law provides adequate assistance to certain aged citizens 70 years of age, who have been residents of the State for 20 years. The State department of public welfare is empowered to supervise the work of the several town boards of public welfare. Page 52.

The majority of the daily laboring population of Porto Rico earn approximately 70 cents per day and are employed about four days out of seven, an investigating staff of the Brookings Institution reports after a survey of the island and its problems. The earnings of the wife and children, plus the income resulting from cultivating a little land and the raising of poultry and livestock, bring up the average rural family's income to something like \$250 to \$275 per annum. Page 46.

There were 44,190,525 organized workers in the various countries of the world at the close of 1928, according to a tabulation published by the International Federation of Trade Unions. The total number of such workers in North America is reported as being 6,947,296, including 4,443,523 in the United States; 1,850,000 in Mexico; and 300,602 in Canada. The total reported for Europe is 35,392,081. Page 125.

The Société of the Familistère of Guise, France, is an outstanding example of a large business conducted on a copartnership basis. It has now completed a half century of successful operation. The fact that the Familistère has outlived its founder by a quarter of a century and has survived the troubles of the World War, indicate the soundness of its underlying principles. Page 116.

To help workers in Italy needing assistance under the various insurance acts—disability and old age, accident, maternity, tuberculosis, and unemployment—the Government in 1926 created the National Institution of Social Assistance. This body gives medical and legal aid to workers and assists them in securing the benefits granted them by the various acts. During the year 1929, the institution helped over 132,000 workers. Page 69.

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Holiday Observance in Collective Agreements

HOLIDAY observance is provided for in practically all of the collective agreements received by the Bureau of Labor Statistics, but the provisions on this point vary not only as between trades but also as between locals in the same trade.

In many of the trades there is no reduction in the pay of employees for the holidays observed. In other trades, such as the building trades, if no work is performed on the holiday there is no pay for such day; where work is performed the pay for the day is at the rate of one and one-half, double, or triple time. A large number of agreements prohibit work on holidays; others permit holiday work when it is necessary to protect life or property. Agreements in the printing trades usually provide for a reduced number of hours' work on holidays, with a full day's pay for the stipulated number of hours. In a number of other trades the agreements of a few locals provide for observance of holidays with pay, while those of other locals in the same trade provide that there shall be no compensation unless work is performed on the holiday.

The observance of holidays without reduction in the regular pay is most general in agreements of bakers, barbers, brewery workers (mineral water and soft drink workers), retail clerks, fur workers, cloth hat and cap makers, clothing workers, tailors, meat cutters, and teamsters and chauffeurs. The provisions for holidays with pay vary as to the number of days to be paid for, the compensation when work is performed on such days, and in some trades the conditions under which work is permitted.

The number of paid holidays varies from 3 to 13, the larger number occurring in States having a larger number of legal holidays and in places where all the Jewish holidays are observed. The most generally observed holidays are New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. In a few agreements Columbus Day, Patriot's Day, Armistice Day, Election Day, Good Friday, and May Day are included in the holidays to be paid for. There are 13 Jewish holidays; but this number is not always included in the agreements observing Jewish holidays.

A large number of these agreements prohibit all work on holidays, while others will permit work on such days under certain conditions. In a few agreements it is provided that employees shall work, without pay, a stated number of hours of overtime on the day preceding a holiday, others provide that if the holiday falls on Saturday or

Monday, when to close the establishment would work a hardship on the employer, the employee will be given another day off, with pay. In other trades where it seems necessary that work shall be performed on each day of the week the agreements provide for the minimum amount of work necessary on the holiday with a full day's pay for such time.

Bakery Workers

BAKERY workers, in 70 local agreements, provide for holidays without reduction in regular pay; 57 of these provide for the legal holidays, while 13 provide for Jewish holidays. Labor-Day is observed in 63 agreements, May Day in 12 agreements, and Armistice Day in 13 agreements.

One Jewish local agreement provides: "If members are out of work, they may work on any of the Jewish holidays and receive special pay, not interfering with the pay for regular workers"; another provides: "Employer shall not discharge any one during period of four weeks before any Jewish holiday or May 1." Four agreements provide that if members work on legal holidays they must take another day off during the week of the holiday with pay. Two agreements have the following provisions:

Five days shall constitute a week's work in all weeks where the following holidays fall upon a Tuesday, Wednesday, Thursday or Friday, to wit: Decoration Day, Fourth of July, Thanksgiving, Christmas Day, New Year's Day, and Washington's Birthday. There shall be no reduction in pay on account of the observance of holidays, but the employer shall be entitled to two hours work on day previous to holiday without overtime pay. If holiday falls on Saturday or Monday, six days shall constitute a week and a half day's pay shall be added to the week's pay.

Barbers

BARBERS in 26 agreements provide that shops shall remain closed on all legal holidays; three agreements provide for closing all day on four holidays and keeping the shops open from 8 a. m. to 12 noon on four holidays; one provides that the shop shall be closed all day on four holidays and at noon on Decoration Day and Easter Monday; 3 provide for a half day's work with a full day's pay on all holidays, but one of these stipulates that if the holiday falls on Saturday the shop shall remain open until 4 p. m. Sixteen locals provide that when a holiday falls on Saturday or Monday the shops are to remain open until noon, and one of these stipulates that members who work four hours on a holiday falling on Saturday or Monday shall be allowed a full day off for said holiday; two provide for all-day closing on Christmas regardless of the day of the week; another provides for a half day on New Year's Day; two for a half day on Thanksgiving, and one for a half day on Decoration Day. One agreement has the following provision:

Washington's Birthday, Decoration Day, Fourth of July, Thanksgiving, shops shall be closed all day except when they fall on Saturday or Monday, close half day. If holiday on Sunday, close half-day Monday following. On Christmas and New Year's Day, close all day regardless of day of the week. Columbus Day, shops close at noon. Curtains must be drawn on Sundays and holidays so as to give clear view of the interior.

Agreements of 52 barbers locals provide for observance of Labor Day with full pay. Eight agreements provide for four hours' work on

Labor Day, and one of these stipulates that if there is a labor parade the men shall have time off to participate.

Brewery Workers

SIXTEEN agreements of brewery workers provide that no work shall be performed on holidays, and that employees shall be paid the regular rate for such days; one of these provides for the following holidays: "Passover, Yom Kippur, two days of Roshashona, the first day of Shevueth, and May 1." Two agreements provide that if work is absolutely necessary on holidays it shall be paid for at time and one-half in addition to the regular day's pay; another provides that "work shall not last longer than one-half day, although the employee shall receive a full day's pay for same, and each man shall work his holiday in rotation." One agreement contains the following: "The second Wednesday in August of each year shall be set aside as a special holiday, to be known as Brewer's Day. On this day and Christmas no work shall be done and a full day's wages shall be paid."

One agreement of brewery machinists provides as follows.

Christmas and New Year's Day, when they occur on a week day, shall be observed as a holiday but without pay. May 1 shall be observed as a holiday with full pay except when it falls on a Friday, Saturday, or Monday, in which case any other day can be substituted with full pay. Labor Day shall be observed as a holiday on the second Thursday in September with full pay.

Clothing Workers

THE Cloth Hat, Cap, and Millinery Workers' Union agreements quite generally provide for observance of holidays without reduction in pay. The number of holidays paid for varies from four to seven. One local provides that if employee works one day during the month in which the holiday occurs he shall be entitled to compensation for the holiday, even if no work is performed in the shop during the week in which the holiday occurs. Ten locals provide that new employees are not entitled to pay for holidays during their two weeks' trial period, but upon becoming permanent workers they shall receive back pay for such holidays with their fourth week's pay. One agreement provides that if an employee is laid off for a period of 14 days in which a holiday occurs he shall be paid for such holiday; another provides that week workers shall be paid for seven holidays, if employed during the week in which holidays occur or during any time within five weeks preceding the holiday. One agreement contains the following provision:

The following legal holidays shall be observed and the workers shall receive full pay for same: Washington's Birthday, Independence Day, Labor Day, Thanksgiving, and Christmas Day. If employer observes all the Jewish holidays he may substitute the following holidays for the above named: Election Day, first day of the Jew. New Year, the Passover and first day of Shevueth, but arrangement for such substitution must be made with the union in writing not later than four weeks after day of signing of this agreement.

Fur workers' agreements for 13 locals provide for the observance of holidays with pay. Eight of these locals provide for 10 holidays on which members are not permitted to work, namely: New Year's Day, Lincoln's Birthday, Washington's Birthday, Decoration Day,

Fourth of July, Columbus Day, Labor Day, Election Day, Thanksgiving, and Christmas, with pay for all except New Year's Day, Lincoln's Birthday, and Washington's Birthday; four of these locals stipulate that no worker shall be discharged in a week preceding a holiday week. Two locals provide for 10 legal holidays and May 1, with pay, and if work is performed on any of these days the workers shall receive double pay. One local provides for eight legal holidays, but permits the employer to exchange a legal holiday for the nearest Jewish holiday. Two locals provide for 10 legal holidays with pay; one of these will permit work on Columbus Day and Thanksgiving Day provided that workers are paid at the rate of time and a half in addition to regular compensation, while the other will permit work on any of the 10 days if workers are paid time and a half in addition to the regular pay. Four locals provide as follows:

Employers whose factories are not working on all the Jewish holidays are permitted to exchange legal holidays for the nearest Jewish holidays. If two or more Jewish holidays fall in one week, hourly rate of pay for that week shall be as though but one holiday. Firms whose factories are closed only on certain holidays shall be permitted to exchange Columbus Day, Election Day, and Thanksgiving for the two days of the Jewish New Year and the Day of Atonement on even terms. Firms who are exchanging legal for Jewish holidays shall have the right to work on Columbus Day, Election, and Thanksgiving if they pay one and one-half time in addition to the wages.

The Journeymen Tailor's Union, with few exceptions, provides for the observance of legal holidays without deduction from the regular pay of members. Usually, work is prohibited on all holidays, but when work is permitted double rates must be paid.

The Cleaners, Dyers, and Pressers' Union, as a rule, prohibits work on holidays, with no mention in the agreements as to whether the members are paid for such days. However, the following provision appears in one agreement:

Employees shall not be required to work on Decoration Day, July 4, Labor Day, Thanksgiving, Christmas Day, New Year's Day, first day of Roshashona, Yom Kippur, and wages for these holidays shall be paid in full, excepting, however, that the union may otherwise agree with members of cleaners association with respect to payment for some of said holidays.

The United Neckwear Makers' Union and the Neckwear Tackers, Trimmers and Boxers' Union have the following provision:

The following holidays shall be observed by piece and week workers, and all week workers shall be paid for same: New Year's Day, Lincoln's Birthday, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Columbus Day, Election Day, Thanksgiving, and Christmas Day.

Practically all the agreements between the Amalgamated Clothing Workers and the manufacturers of men's clothing prohibit work on legal holidays, the number of holidays observed varying from 6 to 10. Two agreements provide that "All weekly workers shall be allowed 10 legal holidays with full pay; there shall be no lay-off of workers on, during, or because of holiday week."

The International Ladies' Garment Workers' Union generally provides in its agreements for the observance of all legal holidays, but limits the number of holidays to be paid for. Two agreements provide that there shall be no work on New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Election Day, Thanksgiving, and Christmas, and that all workers shall be

paid full wages for such days. Fifteen agreements prohibit work on six holidays and on one-half day of November election, and stipulate that all week workers shall be paid for such days. In five agreements six holidays are observed without reduction in pay, but if workers refrain from working on May 1 it must be without pay. Four agreements provide that all workers shall be paid for three legal holidays and one-half of Election Day whether the shop is working or not, and shall observe three holidays without pay. Cutters, however, are to be paid for 10 legal holidays. Six locals provide as follows:

New Year's Day, Decoration Day, Fourth of July, Columbus Day, Thanksgiving and Christmas shall be observed without pay. No work on Labor Day, but all workers (week and piece) to receive pay for day, whether there is work in the shop or not during Labor Day week.

Retail Clerks

RETAIL clerks, in agreements covering 17 locals, provide for the observance of holidays without loss of pay. A few agreements call for some work on holidays, with pay for the full day, while others allow extra work on the one or more evenings preceding Christmas. One agreement, in addition to specifying six and one-half holidays, provides for Saturday holidays during July and August, while another provides that the stores shall close at noon beginning the first Thursday in June and ending the last Thursday in September. One agreement has the following provision:

The firm will pay members of union for all the following legal holidays, or the following Jewish holidays, but no work will be required: New Year's Day, Lincoln's Birthday, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Columbus Day, Election Day, Thanksgiving, Christmas and May 1st. Jewish—First day and last 2 days of Passover, first 2 days and last 2 days of Succoth, 2 days of Shevueth, 2 days of New Year's (Roshashona) and Day of Atonement (Yom Kippur) and second half of Purim and May 1st.

Steam and Operating Engineers

STEAM and operating engineers' agreements covering members who are working on straight time—by the week or month—require that such members be paid for all holidays, and if required to work shall be paid double rates. Three agreements contain the following provisions:

New Year's Day, Washington's Birthday, Lexington Day, Memorial Day, June 17, Fourth of July, Columbus Day, Thanksgiving and Christmas; also all days which may become legal holidays are to be observed. No deductions to be made from the weekly pay for observing the above days. If required to work on holidays shall be paid \$7 per day in addition to regular pay.

Engineers on monthly wage not required to work on following holidays, and no deduction from pay when not working. Double time if work performed. New Year's Day, Decoration Day, Fourth of July, Labor Day, Thanksgiving and Christmas.

When the following holidays fall on a work day they shall be paid for: New Year's Day, Decoration Day, July Fourth, Labor Day, Thanksgiving and Christmas.

Meat Cutters and Butcher Workmen

MEAT cutters and butcher workmen provide for the observance of holidays with pay in 11 agreements. Seven of these provide that no

work shall be performed on Labor Day. One agreement permits members to work until noon on Labor Day and Fourth of July; another provides that markets may supply restaurants and hotels, and that members of local will be permitted to wait on such trade not to exceed two hours. One local provides "There shall be no work on legal holidays except that if a holiday falls on Monday one delivery shall be made, and if holiday falls on Saturday, employees shall work until noon. Three locals provide that work shall cease at noon on Election Day. One agreement contains the following provision:

The employee is to be paid for all Jewish holidays. The boss has, however, the right to make his men work on the previous day as much as is necessary for the business. On the first day of a holiday the employee is not allowed to work at all, on the second day he is allowed to work if he receives double pay. On the first day of May work must be stopped at 10 a. m., on the Fourth of July and Labor Day at 12 noon.

Teamsters and Chauffeurs

TEAMSTERS and chauffeurs in 54 out of 89 agreements received by the bureau provide for the observance of holidays with pay, 10 of these stipulating that employees shall not be required to report for work on holidays. Twenty-two provide that if employee works on any of the holidays he shall be paid double rates; one of these stipulates that if a man fails to report the day after a holiday he forfeits his pay for such holiday; two provide that the minimum number of hours to be paid for holiday work shall be $4\frac{1}{2}$ at double time; in one the minimum number of hours is four, and in another three at double rates; another provides "If a man begin before noon he shall be paid for the full day at double time." Seven agreements specify that a man must work three days of a holiday week to be entitled to pay for the holiday. Five agreements provide that if work is performed on any of the holidays time and a half shall be paid. Four stipulate that there shall be no work on holidays, except when they fall on Saturday or Monday, in which case only one trip will be made with no extra pay for the trip. Seven agreements reduce the number of hours to be worked on holidays but provide that employees shall receive the full day's pay; two of these provide that all wagons must be off the streets by 10 a. m.; two provide for 4 hours' work, two for $4\frac{1}{2}$ hours' and one for 6 hours' work to constitute the day's work. Work on Labor Day is prohibited in 23 agreements. One provides "No work on Labor Day except in extraordinary emergency—handling furniture is not an extraordinary emergency." Two provide "Employees shall be required to do their regular work without additional pay on the first Sunday in September but shall do no work on Labor Day." Six provide that there shall be no work on Labor Day without the permission of the union through the local officers. In two agreements it is provided that only such work as is necessary properly to finish their routes shall be performed; in one, that there shall be no work after 7 a. m.; in another, that all retail wagons shall be off the streets at 9 a. m.; and in another, that work shall cease at 10 a. m. on Labor Day. Six agreements have the following provisions, respectively:

New Year's Day, Fourth of July, Thanksgiving, and Christmas shall be full holidays for regular salesmen. Washington's Birthday, Labor Day, and Decoration Day shall be half holidays. No deduction from pay for holidays.

On all legal holidays teamsters work until noon. No work and single rate of pay on the following days: First and last day of Passover, first day of Shevueth, two days of Roshashona, one day of Yom Kippur, first and last day of Succoth. If required to work on any of these days \$2 per hour extra.

No work on the following holidays but pay for same: New Year's Day, Decoration Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. If members called for work, they must be paid \$1.75 per hour for not less than 3 hours in addition to the day's pay.

To all drivers and salesmen the following holidays shall be granted without reduction in pay: New Year's Day, 22d of February, 30th of May, 4th of July, the day following Labor Day, Thanksgiving and Christmas Days, except when the aforesaid holidays fall on a Saturday or a Monday; in such event, members shall be paid time and one-half for the day.

New Year's Day, Decoration Day, Fourth of July, Labor Day, Thanksgiving and Christmas, employees may be off, if no necessity for their services, with pay. This privilege shall rotate in a fair and equitable manner amongst the employees.

There shall be no work on Thanksgiving, Christmas, and New Year's Day, and there shall be no work done on Decoration Day, when same falls on Tuesday, Wednesday, or Thursday. On Labor Day and the Fourth of July only such work to be done as is necessary to properly finish routes. This rule also to apply when Decoration Day falls on Monday, Friday, and Saturday. Employees to suffer no reduction in pay on account of this section.

In several other trades a few locals provide for holidays with pay, while other locals in the same trade call for the observance of holidays but without pay.

Bookkeepers, Stenographers, and Typists

BOOKKEEPERS, stenographers, and typists in one agreement provide for the observance of all holidays with pay. If required to perform any work on a holiday they are paid double time therefor, or by mutual agreement are allowed a day off at another time.

Window Cleaners

THE agreements of three locals of window cleaners provide for holiday observance without deduction from regular pay. Two of these provide for seven holidays with pay and stipulate that if required to work on any of these holidays members shall be paid at double rates. One agreement provides as follows:

All week workers shall be paid for the following legal holidays: New Year's Day, Lincoln's Birthday, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving and Christmas Day, and the union agrees not to object to the employment of any of its members on any such days, providing such members are willing to work and will receive double pay.

Hotel and Restaurant Employees

THE hotel and restaurant employees have the following provisions in two of their agreements:

Establishments closing on holidays are required to pay full wages.

If place is closed on the following holidays no wages shall be deducted: New Year's Day, Washington's Birthday, Pasach, May 1, Decoration Day, Fourth of July, Labor Day, Thanksgiving, Roshashona, Yom Kippur and Christmas Day. Where workers are employed steadily and such places close on any holiday, such workers shall receive their salary in full. If kept open the same number of employees shall be furnished as on Saturdays and workers shall change off in rotation on succeeding holiday.

Laundry Workers

FIVE agreements of laundry workers provide for the observance of all legal holidays, including Labor Day, with pay. Three of these specify that there shall be no work on the accepted holidays except to save life or property, and that double time shall be paid for such work.

Masters, Mates, and Pilots

THE observance of holidays with pay is provided for in four agreements of masters, mates, and pilots with their employers. Two of these agreements provide for double rates if the men are required to work on holidays, and two that "if a mate is required to stay on board in any port on New Year's Day, July Fourth, Labor Day, Thanksgiving or Christmas Day, he shall have one full day off with pay, or be paid one day's additional pay."

Upholsterers

ONE agreement of upholsterers and their employers provides that week workers shall have eight holidays with pay, and that no work shall be performed on such holidays.

Commercial Telegraphers

THE agreement of the Commercial Telegraphers' Union with the press associations provides for a full day's pay for four hours' work up to noon, or for four hours' work beginning at noon, on Christmas and Fourth of July, and double time for any additional time.

Pocketbook Workers

The International Pocketbook Workers' Union agreement provides as follows:

All week workers are to receive full pay without work for the following legal holidays: Independence Day, Labor Day and Washington's Birthday. It is the sense of this article that all regular week workers receive pay for said holidays whether they work or not during the week in which such holidays occur. For work done on the remaining seven legal holidays, week workers are to receive payment at the rate of time and one-half. It is understood, however, that the employer will not close shop on said holidays for the purpose of evading payment of time and one-half.

Printing-Trades Workers

COMPOSITORS have few agreements which provide for the observance of holidays with pay, but a large number of these workers receive pay for holidays, without work, by verbal agreements with the publishers. The most general provision is that the number of hours to be worked on holidays shall be reduced as far as is consistent with getting out the regular editions of the paper and that the employees shall receive a full day's pay. A number of agreements specify the number of hours for holiday work (varying from 3 to 6 hours), and usually provide that when members work more than the specified number of hours they shall receive double time or time and a half for such overtime. Three agreements with newspapers have the following provisions:

All holidays shall be paid at single time rates whether or not employees are required to report for work.

Each member employed in the composing room of a 7-day edition paper shall receive 13 holidays every year with full pay. Double-time rate if required to work on these days.

New Year's Day, Decoration Day, Fourth of July, Labor Day, and Christmas no employee shall work, but shall receive his full pay. Lincoln's Birthday, Washington's Birthday, Columbus Day, Election Day, and Thanksgiving, three and one-half hours constitute a day for a full day's pay.

One agreement with a book and job office provides as follows:

All compositors holding situations are entitled to three holidays (two days of Jewish New Year and Day of Atonement) with full pay, and it is the employer's prerogative to choose between the legal and the Jewish holidays to prevail in his office. If the Jewish holidays are to prevail they shall consist of the two days of the Jewish New Year, the Day of Atonement, the four days of the Tabernacle, four days of the Passover, and two days of the Pentecost. If the legal holidays are accepted, they shall consist of two days of the Jewish New Year, the Day of Atonement, New Year's Day, Lincoln's Birthday, Washington's Birthday, Memorial Day, Fourth of July, Labor Day, Columbus Day, Election Day, Thanksgiving, and Christmas. When a man is required to work on any of the adopted days he shall get double price.

Printing pressmen in 50 agreements stipulate that for work performed on holidays double rates shall be paid, and two of these that in no case shall the time to be paid for at double rates be less than four hours. Ten agreements provide payment for holiday work at time and a half. Two agreements provide that in newspaper offices 6 hours shall be considered a day's work, with a full day's pay; two provide for 5 hours' and two for 4 hours' work on holidays, with double time for all time over the specified hours.

Web pressmen in eight agreements provide for double time for all work performed on holidays, while four provide for time and a half. Five agreements provide that 5 hours' work on a holiday shall constitute a day's work and be paid for as such. One of these, however, expressly states that if the holiday falls on Saturday, the full 8 hours shall be worked. One agreement provides for 4½ hours' work on holidays, while another stipulates that four consecutive hours or any part thereof shall constitute a day's work to be paid for at the regular daily scale.

Stereotypers and electrotypers in 27 agreements provide that any work performed on holidays shall be paid for at double rates; in 5 of these the double rate does not apply to newspaper offices publishing regular morning editions; 3 stipulate that no man shall receive less than 4 hours' pay; 5 that a full day's pay at double rates shall be paid for any portion of the day, and one that if less than 3 hours are worked the member shall be paid at triple rates. Three locals provide for time and a half for holiday work; one of these stipulates that employee shall not be paid less than one day at regular rate. In newspaper offices the usual rule is to pay the regular rate but work a less number of hours on holidays. One local provides that 6 hours, and another that 5½ hours shall constitute a day's work. Eight locals provide that 5 hours shall constitute a day's work; one of these stipulates that when a holiday falls on Saturday or Sunday the following Monday shall be observed as the short day. Two locals provide 4 hours to constitute a day's work. Three agreements prohibit work on Labor Day at any price, but 17 permit work at

double rates, though one of these stipulates that the approval of the president or secretary of the local must be obtained for work on this day.

Photo-engravers in 20 agreements provide that double time shall be paid for work performed on holidays; one of these specifies that the employee shall be paid for not less than 4 hours' time. Six locals provide that not less than 8 hours shall be paid for at double rates and that all time in excess of that number shall be paid at triple rates; one of these stipulates that not less than 8 hours at triple time shall be paid for work on Christmas and Fourth of July. Three locals provide for triple rates for holidays, and one of these that less than 5 hours' work shall be paid as for 2 days. Two locals prohibit work on Labor Day under any and all circumstances. Fourteen locals provide that no work shall be performed on Labor Day without the permission of the union; 11 of these call for double time and 3 for triple time if work is performed.

The Mailers' Union in two agreements provides for time and a half for holiday work; one of these stipulates that 5 hours shall constitute a day's work. One agreement specifies that any employee brought in to start work between 9 a. m. and 6 p. m. on the Fourth of July, Labor Day, Thanksgiving, and Christmas, shall be paid a full day at double price.

Railroad Employees

RAILWAY and steamship clerks and freight handlers' agreements usually provide time and a half rate for holiday work, although on a number of the railroads, if services are rendered on holidays, straight time is paid for the regular number of work hours and time and a half for all time in excess of regular hours. Several agreements contain the following:

New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving, and Christmas shall be paid for when not worked, but in such cases employees absolutely necessary to take care of current work shall take turns in working on those days—no extra rate for those working and they agree to waive overtime pay when occasioned by holiday.

Maintenance-of-way employees in several agreements provide for time and a half rate for holiday work, except where employees are necessary to the continuous operation, when they are paid at straight time rate. One agreement provides as follows:

Time worked on Sundays and the following holidays—New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving, and Christmas—shall be paid for at pro rata hourly rate when the entire number of hours constituting the regular week-day assignment are worked. If less than the full number of hours, a minimum of 3 hours for 2 hours or less at the pro rata hourly rate after the second hour on duty.

Railroad shopmen's agreements usually provide for time and a half rate for holiday work, except for 7-day assignments on which straight time is paid for 8 hours, with a minimum of four hours' pay for 2 hours and 40 minutes or less.

Street-Railway Employees

THE Amalgamated Association of Street and Electric Railway Employees has few agreements with special provisions for holiday work for the regular motormen and conductors, who handle holiday and Sunday work in the same manner as on other days. In a few locals time and a half is paid for holiday work. In one agreement the overtime rate (10 cents above the regular rate) is paid for holiday runs; in another, operators on 2-part runs receive the regular rate for the actual hours worked, plus an allowance of 45 minutes. One agreement has the following provision:

Members of the association who work on New Year's Day, Fourth of July, Labor Day, Armistice Day, and Thanksgiving shall be paid at the rate of time and one-half for such work. Members who work on Christmas Day shall be paid double time.

Street-railway agreements usually provide for time and a half for holiday work performed by linemen, shopmen, trackmen, and track cleaners who are members of the association. In one of these agreements it is provided that track cleaners will be allowed one-half day off on holidays, except when emergencies occur; another agreement specifies that when work is required of shopmen on holidays they shall be notified at least two days in advance. Two agreements have the following provisions:

Employees of the mechanical department shall be allowed Thanksgiving or Christmas off with pay, and the foreman shall use his discretion in determining which of the various men shall be allowed off on each of these holidays.

Shopmen called to work on Sunday or following holidays when not their regular watch shall be paid time and one-half: New Year's, Decoration Day, Fourth of July, Labor Day, Thanksgiving, and Christmas. Shopmen not reporting for their regular watch on Sundays or holidays shall be penalized to amount of overtime paid men taking their places.

Workers in Other Trades

AGREEMENTS of building trades, metal trades, granite and stone cutters, quarry workers, glass workers, paper makers, longshoremen, and individual locals of several other trades, provide for the observance of holidays, but without compensation if no work is performed on such days.

Building-trade agreements generally prohibit work on holidays except to protect life or property. In many agreements a permit must be obtained from the local's officers before work may be performed. In those agreements permitting work on holidays the compensation paid for such work is at the rate of time and a half, or double time. The provisions regarding work on Labor Day are more stringent than for work on other holidays. The majority of the building-trade agreements prohibit all work on Labor Day, the penalty for violation of such provision being fines ranging from \$10 to \$50, and in some cases expulsion from the union, in addition to the fine. When work is permitted, the usual demand is for double or triple time. One agreement provides that four days' time shall be paid, and another five days' time for any work performed on Labor Day. One agreement contains a clause to the effect that if it is necessary to perform work on Labor Day to save life or property, a permit shall be issued and the employee must give his services with-

out compensation. One agreement requiring double time for work performed on Labor Day provides that the employee shall forfeit to the local union one-half of the amount earned and another the full amount earned.

Time and a half or double time is paid for work performed on holidays in the metal trades, granite and stone cutters, quarry workers, glass workers, paper makers, and longshoremen. A few agreements of the longshoremen provide that as far as possible only baggage and mail shall be handled on Labor Day, Fourth of July, and Christmas.

Fluctuation of Employment in Mining and Quarrying in Ohio, 1914 to 1929

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THIS analysis shows, for Ohio, the fluctuation of employment during the 16-year period, 1914 to 1929, in coal mining, limestone quarrying, sandstone quarrying, fire-clay mining, and gypsum mining. These industries provided employment for an average of 55,404 employees in 1920 and 27,632 in 1929.

In coal mining, the degree of variation from maximum employment was quite different in the several years. In years in which labor difficulties occurred, the variation from the maximum month was from 79 per cent in 1919, to 90 per cent in 1922. In other years it ranged from 7.9 per cent in 1918 to 54.5 per cent in 1928.

In limestone quarrying the annual fluctuation of employment varied from 23.8 per cent in 1919 to 46.1 per cent in 1915. In sandstone quarrying the annual fluctuation of employment ranged from 19.5 per cent in 1921 to 47.7 per cent in 1923. In fire-clay mining the annual fluctuation of employment varied from 10.1 per cent in 1927 to 30.8 in 1922. The annual fluctuation of employment in gypsum mining varied from 12.8 per cent in 1929 to 47.2 per cent in 1924.

The sources of the data used in this study are the reports of the division of labor statistics of the Department of Industrial Relations of Ohio, entitled, "Statistics of Mines and Quarries in Ohio," for the years 1914 to 1917 and 1921 to 1928, both inclusive, and the files of the division of labor statistics for the years 1918 to 1920, inclusive, and for 1929. Figures of "total number of persons employed in and around the mine on the fifteenth of each month or for pay roll nearest the fifteenth" are furnished the division annually, as required by law, by operators of mines and quarries in Ohio. The data include a small number of office workers (1.5 per cent of the total in the case of coal mining), some of whom are women. As will be seen from figures presented later, only a very few mines and quarries fail to report.

Coal

TABLE 1 shows the number of coal mines reporting each year.

TABLE 1.—NUMBER OF COAL MINES REPORTING FLUCTUATION OF EMPLOYMENT 1914 to 1929

Year	Number of mines ¹	Year	Number of mines ¹	Year	Number of mines ¹	Year	Number of mines ¹
1914.....	795	1918.....	1,333	1922.....	1,423	1926.....	879
1915.....	827	1919.....	1,162	1923.....	1,230	1927.....	858
1916.....	752	1920.....	1,343	1924.....	1,000	1928.....	714
1917.....	1,206	1921.....	1,053	1925.....	889	1929.....	679

¹ The mines which are not included herein varied from 186 in 1916 to 38 in 1928, and represent cooperative mines, mines in which owners did their own work, and a few which failed to report the number of employees on the 15th of each month.

The completeness of the Ohio data is apparent from a comparison with the United States Census. In 1919 the average number of persons "employed in and around the mines" as determined from the monthly figures reported to the division of labor statistics was 41,339. For the same year the average number of "wage earners" as shown by the census was 40,452. The census includes only those mines producing 1,000 tons or more of coal during the year. Approximately 600 office employees are included in the Ohio figures. If these be deducted, the average as shown by the division would be 40,739, or seven-tenths of 1 per cent more than the census figures. No satisfactory comparison can be made with the data of the United States Bureau of Mines, as that bureau asks the operators to determine the average number of employees and remarks, "Many of the smaller operators do not even average the pay rolls for the year, but rather set down the number of employees shown by the last pay roll"; the operators do not consider strike periods in computing the average, and the resulting figures represent the "number of men commonly dependent on the mines for employment."¹

The number of persons employed in coal mining on the 15th of each month for each of the 16 years, 1914 to 1929, is shown in Table 2 and the data are shown graphically in Chart 1 (p. 14). Since the number of firms reporting is not the same from year to year, the data for each year are shown as separate segments of the curve.

TABLE 2.—NUMBER EMPLOYED IN COAL MINING ON THE 15TH OF EACH MONTH, 1914 TO 1929

Month	1914	1915	1916	1917	1918	1919	1920	1921
January.....	43,099	26,788	36,348	42,715	49,606	44,784	48,112	47,196
February.....	43,182	25,917	36,980	42,787	50,115	41,324	47,216	43,228
March.....	43,190	25,049	36,855	42,332	50,614	40,725	47,106	41,500
April.....	6,041	25,316	29,792	41,584	49,851	40,963	46,008	37,796
May.....	5,847	23,233	32,839	43,164	50,150	42,491	46,979	39,263
June.....	5,331	27,849	35,378	45,216	50,606	44,447	48,355	40,975
July.....	9,537	29,174	37,296	46,063	51,453	45,290	48,758	41,129
August.....	21,973	29,007	38,399	47,176	51,487	47,732	50,012	41,979
September.....	26,403	31,818	39,217	47,711	50,615	48,362	50,437	43,018
October.....	28,200	33,379	39,937	48,405	50,503	48,451	51,217	45,249
November.....	27,639	35,289	40,541	49,461	48,505	10,187	51,835	45,719
December.....	28,319	36,477	40,754	51,412	47,435	41,327	53,120	41,464

¹ U. S. Bureau of Mines. Mineral Resources of the United States, 1925, Part II, pp. 428, 429.

CHART 1. FLUCTUATION OF EMPLOYMENT IN COAL MINING, 1914-1929

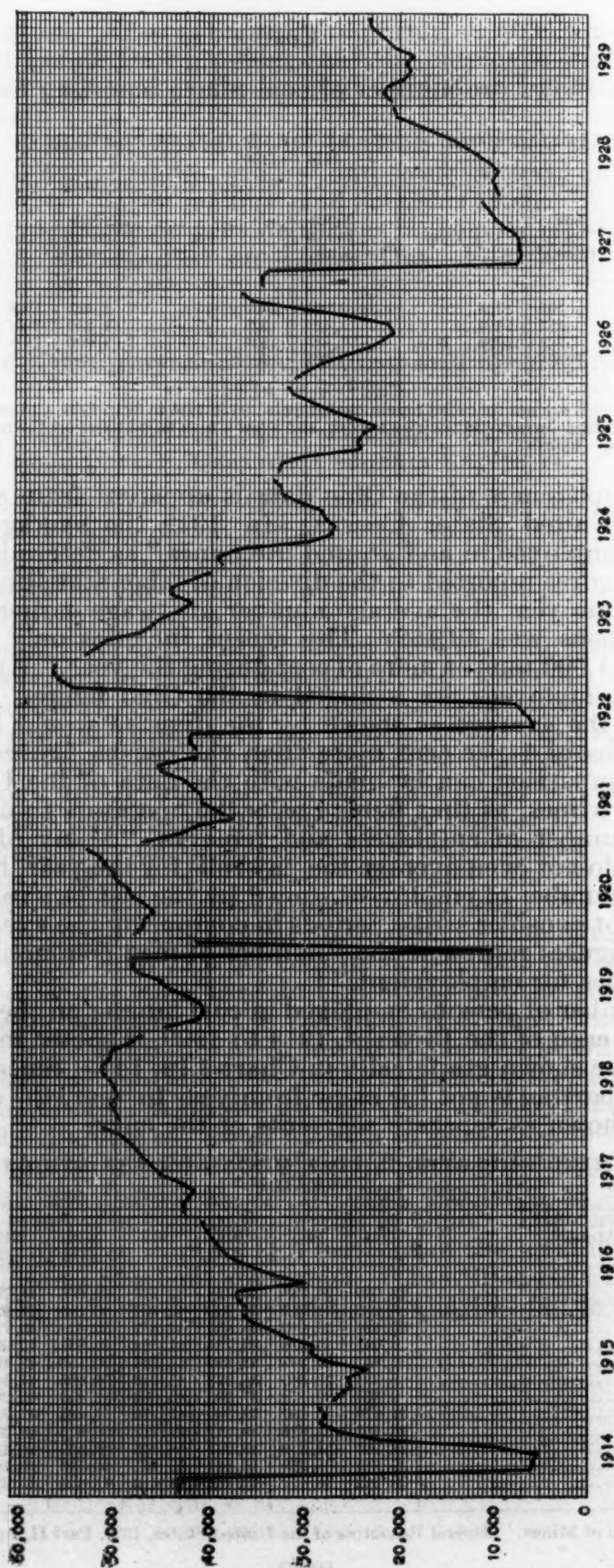


TABLE 2.—NUMBER EMPLOYED IN COAL MINING ON THE 15TH OF EACH MONTH, 1914 TO 1929—Continued

Month	1922	1923	1924	1925	1926	1927	1928	1929
January.....	41,604	53,498	38,920	32,937	31,218	34,636	9,409	20,932
February.....	42,265	52,210	39,441	32,663	29,788	34,755	9,805	21,700
March.....	42,111	51,085	37,246	30,256	28,336	34,002	10,058	21,440
April.....	5,661	47,595	29,541	24,086	25,805	7,664	9,511	19,618
May.....	5,971	46,361	27,278	24,494	22,871	7,129	10,323	18,788
June.....	6,790	45,365	26,905	23,836	21,945	7,325	11,620	19,276
July.....	7,628	43,175	27,869	22,516	20,702	7,303	12,783	18,478
August.....	34,794	42,166	28,335	25,001	21,120	7,824	14,194	20,470
September.....	54,748	44,154	30,500	27,379	24,842	9,012	16,213	21,366
October.....	56,150	44,287	32,546	29,219	30,138	9,876	18,190	22,411
November.....	56,850	42,043	32,583	31,417	35,742	10,407	20,412	23,248
December.....	56,646	40,160	33,503	31,919	36,819	11,220	20,692	23,264

Table 3 shows the average number employed, the maximum and minimum number employed, and the number and per cent of variation from the maximum in each of the 16 years.

The average number of employees varied from 13,601 in 1928 to 50,078 in 1918. In the last five years the average number of employees was 27,977 in 1925, 27,444 in 1926, 15,096 in 1927, 13,601 in 1928, and 20,916 in 1929.

The month of greatest employment was December in 1915, 1916, 1917, 1920, 1926, 1928, and 1929; January in 1921, 1923, and 1925; February in 1924 and 1927; March in 1914; August in 1918; October in 1919; and November in 1922. The month of least employment was April in 1916, 1917, 1920, 1921, and 1922; May in 1915 and 1927; June in 1914 and 1924; July in 1925, 1926, and 1929; November in 1919; December in 1918 and 1923; and January in 1928.

The variation from maximum ranged from 4,052, or 7.9 per cent, in 1918 to 51,189, or 90 per cent, in 1922. Considering the last five years, the variation from maximum was 10,421, or 31.6 per cent, in 1925; 16,117, or 43.8 per cent, in 1926; 27,626, or 79.5 per cent, in 1927; 11,283, or 54.5 per cent, in 1928; and 4,786, or 20.6 per cent, in 1929.

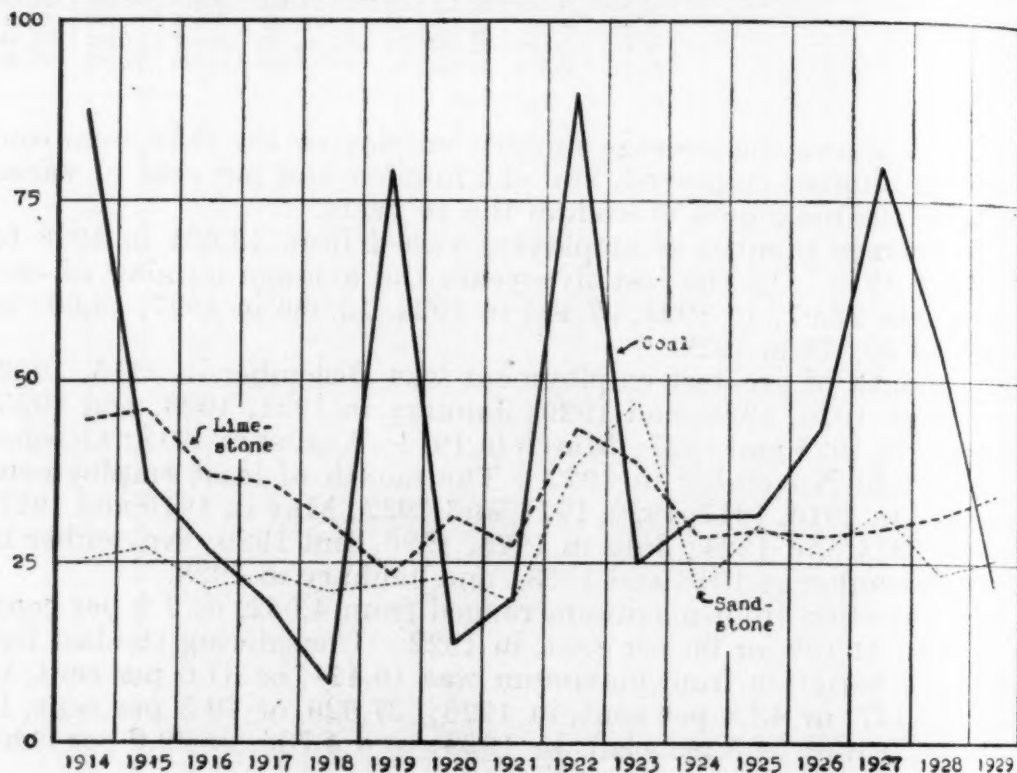
TABLE 3.—AVERAGE NUMBER EMPLOYED AND MAXIMUM AND MINIMUM NUMBER EMPLOYED IN COAL MINING, 1914 TO 1929

Year	Average of 12 monthly reports	Maximum		Minimum		Variation from maximum	
		Number	Month	Number	Month	Number	Per cent
1914.....	24,063	43,190	March.....	5,331	June.....	37,859	87.7
1915.....	29,116	36,477	December.....	23,233	May.....	13,244	36.3
1916.....	37,028	40,754	do.....	29,792	April.....	10,962	26.9
1917.....	45,669	51,412	do.....	41,584	do.....	9,828	19.1
1918.....	50,078	51,487	August.....	47,435	December.....	4,052	7.9
1919.....	41,339	48,451	October.....	10,187	November.....	38,264	79.0
1920.....	49,096	53,120	December.....	46,008	April.....	7,112	13.4
1921.....	42,376	47,196	January.....	37,796	do.....	9,400	19.9
1922.....	34,268	56,850	November.....	5,661	do.....	51,189	90.0
1923.....	46,008	53,498	January.....	40,160	December.....	13,338	24.9
1924.....	32,056	39,441	February.....	26,905	June.....	12,536	31.8
1925.....	27,977	32,937	January.....	22,516	July.....	10,421	31.6
1926.....	27,444	36,819	December.....	20,702	do.....	16,117	43.8
1927.....	15,096	34,755	February.....	7,129	May.....	27,626	79.5
1928.....	13,601	20,692	December.....	9,409	January.....	11,283	54.5
1929.....	20,916	23,264	do.....	18,478	July.....	4,786	20.6

Fluctuations of employment in coal mining are occasioned not alone by the prosperity of the industry itself but also by the occurrence of labor difficulties. Disagreements occurred in the Ohio mines in 1914, 1919, 1922, and 1927. In each of these years the variation from maximum was more than 75 per cent.

The percentage variation from the maximum in each year is shown in Chart 2.

CHART 2.—PER CENT VARIATION FROM MAXIMUM NUMBER EMPLOYED IN COAL MINING, LIMESTONE QUARRYING, AND SANDSTONE QUARRYING, 1914-1929



Limestone

THE number of limestone quarries reporting for each of the 16 years is shown in Table 4. These include every limestone quarry in the State except that in 1914 there were four quarries which failed to report, in 1915 there were two, and in 1917, 1924, 1925, and 1929 there was one.

TABLE 4.—NUMBER OF LIMESTONE QUARRIES REPORTING FLUCTUATION OF EMPLOYMENT, 1914 TO 1929

Year	Number of quarries	Year	Number of quarries	Year	Number of quarries	Year	Number of quarries
1914.....	75	1918.....	103	1922.....	113	1926.....	119
1915.....	92	1919.....	90	1923.....	120	1927.....	114
1916.....	118	1920.....	103	1924.....	116	1928.....	122
1917.....	112	1921.....	113	1925.....	119	1929.....	121

The United States Census of Mines and Quarries for 1919, which includes only those limestone quarries with products valued at \$500

or more, shows the average number of wage earners to be 2,262. The division of labor statistics reports the average number of persons employed in and around the quarries to be 3,204 for the same year. The number of office employees included in the Ohio figures is somewhat less than 200. Allowing for these office employees, the number of employees shown by the Ohio figures exceeds the census figures by 32.8 per cent.

Table 5 shows the number of persons employed in limestone quarrying on the fifteenth of each month for each of the 16 years, 1914 to 1929. Chart 3 (p. 18) shows the same data graphically.

TABLE 5.—NUMBER EMPLOYED IN LIMESTONE QUARRYING ON THE FIFTEENTH OF EACH MONTH, 1914 TO 1929

Month	1914	1915	1916	1917	1918	1919	1920	1921
January.....	2,317	2,346	2,786	2,377	2,804	3,040	2,748	2,726
February.....	2,126	2,532	2,998	2,516	2,858	2,762	2,682	2,765
March.....	2,264	2,841	3,164	2,754	3,079	2,827	3,029	2,883
April.....	2,601	3,225	3,824	3,053	3,678	3,040	3,291	2,955
May.....	2,684	3,488	4,116	3,440	3,927	3,114	3,515	3,169
June.....	2,882	3,796	4,289	3,542	4,028	3,357	3,765	3,505
July.....	2,931	3,874	4,217	3,485	3,983	3,492	3,878	3,319
August.....	3,010	3,948	4,444	3,722	4,017	3,626	3,855	3,316
September.....	3,032	4,349	4,399	3,487	3,495	3,619	3,909	3,514
October.....	2,779	3,889	4,166	3,256	3,384	3,542	3,812	3,331
November.....	2,319	3,726	3,850	2,954	3,208	3,160	3,503	2,999
December.....	1,671	3,290	3,126	2,435	2,950	2,863	3,023	2,560
	1922	1923	1924	1925	1926	1927	1928	1929
January.....	2,145	2,749	3,350	3,283	3,134	3,278	3,050	2,924
February.....	2,226	2,941	3,259	3,298	3,217	3,364	3,299	2,877
March.....	2,449	3,145	3,705	3,625	3,462	3,786	3,599	3,310
April.....	2,695	3,663	4,080	4,183	3,754	4,065	4,029	3,762
May.....	3,236	3,943	4,469	4,379	4,281	4,282	4,307	3,991
June.....	3,682	4,380	4,455	4,586	4,397	4,555	4,461	4,134
July.....	3,707	4,354	4,481	4,618	4,346	4,581	4,381	4,154
August.....	3,779	4,491	4,571	4,640	4,275	4,650	4,362	4,388
September.....	3,781	4,335	4,510	4,646	4,384	4,483	4,323	4,173
October.....	3,592	4,295	4,436	4,561	4,290	4,323	4,269	3,957
November.....	3,547	3,875	4,066	4,072	4,117	3,857	3,758	3,565
December.....	3,257	3,365	3,341	3,899	3,787	3,391	3,388	3,054

The average number employed, the maximum and minimum number employed, and the variation from the maximum in each of the 16 years is shown in Table 6. The average number of persons employed as determined from the 12 monthly reports varied from 2,551 in 1914 to 4,149 in 1925. It was 3,954 in 1926, 4,051 in 1927, 3,936 in 1928, and 3,691 in 1929.

The month of maximum employment was August in 1916, 1917, 1919, 1923, 1924, 1927, and 1929; September in 1914, 1915, 1920, 1921, 1922, and 1925; and June in 1918, 1926, and 1928. The month of minimum employment was January in 1915, 1916, 1917, 1918, 1922, 1923, 1925, 1926, 1927, and 1928; February in 1919, 1920, 1924, and 1929; and December in 1914 and 1921.

The variation from maximum ranged from 864, or 23.8 per cent, in 1919, to 2,003, or 46.1 per cent, in 1915. The variation was 1,363, or 29.3 per cent, in 1925; 1,263, or 28.7 per cent, in 1926; 1,372, or 29.5 per cent, in 1927; 1,411, or 31.6 per cent, in 1928; and 1,511, or 34.4 per cent, in 1929.

Chart 2 shows the per cent variation from maximum for each of the 16 years.

CHART 3.—FLUCTUATION OF EMPLOYMENT IN LIMESTONE QUARRYING AND IN SANDSTONE QUARRYING, 1914-1929

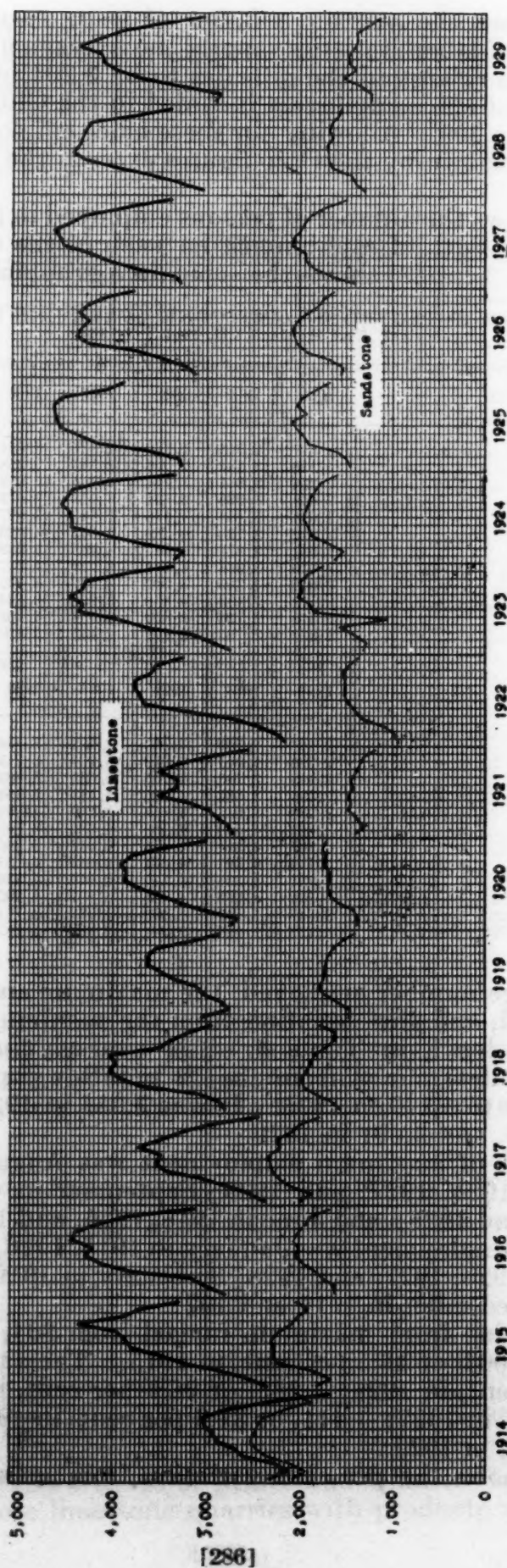


TABLE 6.—AVERAGE NUMBER EMPLOYED AND MAXIMUM AND MINIMUM NUMBER EMPLOYED IN LIMESTONE QUARRYING, 1914 TO 1929

Year	Average of 12 monthly reports	Maximum		Minimum		Variation from maximum	
		Number	Month	Number	Month	Number	Per cent
1914.....	2,551	3,032	September	1,671	December	1,361	44.9
1915.....	3,442	4,349	do	2,346	January	2,003	46.1
1916.....	3,782	4,444	August	2,786	do	1,658	37.3
1917.....	3,085	3,722	do	2,377	do	1,345	36.1
1918.....	3,451	4,028	June	2,804	do	1,224	30.4
1919.....	3,204	3,626	August	2,762	February	864	23.8
1920.....	3,418	3,909	September	2,682	do	1,227	31.4
1921.....	3,087	3,514	do	2,560	December	954	27.1
1922.....	3,175	3,781	do	2,145	January	1,636	43.3
1923.....	3,795	4,491	August	2,749	do	1,742	38.8
1924.....	4,060	4,571	do	3,259	February	1,312	28.7
1925.....	4,149	4,646	September	3,283	January	1,363	29.3
1926.....	3,954	4,397	June	3,134	do	1,263	28.7
1927.....	4,051	4,650	August	3,278	do	1,372	29.5
1928.....	3,936	4,461	June	3,050	do	1,411	31.6
1929.....	3,691	4,388	August	2,877	February	1,511	34.4

Sandstone

IN TABLE 7 is shown the number of sandstone quarries reporting in each of the 16 years. With the exception of five years, the reports cover all of the sandstone quarries in the State. In 1914 there were seven which did not report; in 1915 there were two; and in 1916, 1922, and 1925 there was one.

TABLE 7.—NUMBER OF SANDSTONE QUARRIES REPORTING FLUCTUATION OF EMPLOYMENT, 1914 TO 1929

Year	Number of quarries	Year	Number of quarries	Year	Number of quarries	Year	Number of quarries
1914.....	32	1918.....	49	1922.....	48	1926.....	44
1915.....	50	1919.....	44	1923.....	51	1927.....	46
1916.....	44	1920.....	46	1924.....	49	1928.....	42
1917.....	50	1921.....	42	1925.....	43	1929.....	33

The United States Census of Mines and Quarries includes only those sandstone quarries which produced in 1919 products valued at \$500 or more. In that year the average number of wage earners as shown by the census was 875. In the same year the division of labor statistics reports an average of 1,625 persons employed in and around the quarries. The Ohio figures include approximately 60 persons who were office workers. If allowance be made for these 60 office workers, the Ohio figures exceed the census figures by 78.9 per cent.

Table 8 presents the number of persons employed in sandstone quarries on the 15th of each month for each of the 16 years, 1914 to 1929. The figures are shown graphically in Chart 3.

TABLE 8.—NUMBER EMPLOYED IN SANDSTONE QUARRYING ON THE 15TH OF EACH MONTH, 1914 TO 1929

Month	1914	1915	1916	1917	1918	1919	1920	1921
January.....	2,073	1,822	1,616	1,982	1,563	1,469	1,346	1,403
February.....	1,943	1,666	1,615	1,871	1,662	1,462	1,384	1,367
March.....	2,088	1,869	1,742	2,090	1,833	1,592	1,414	1,375
April.....	2,365	2,238	1,836	2,224	1,962	1,740	1,578	1,496
May.....	2,459	2,277	1,961	2,287	1,980	1,791	1,673	1,453
June.....	2,518	2,266	2,043	2,305	1,932	1,744	1,685	1,468
July.....	2,484	2,291	1,995	2,322	1,875	1,729	1,666	1,425
August.....	2,440	2,207	2,060	2,220	1,835	1,708	1,681	1,452
September.....	2,375	2,079	2,021	2,252	1,716	1,693	1,734	1,461
October.....	2,149	2,010	1,933	2,091	1,632	1,633	1,708	1,350
November.....	1,871	1,901	1,879	1,995	1,622	1,541	1,750	1,313
December.....	2,021	2,017	1,677	1,773	1,778	1,392	1,723	1,182
	1922	1923	1924	1925	1926	1927	1928	1929
January.....	941	1,311	1,621	1,464	1,564	1,404	1,306	1,258
February.....	970	1,204	1,535	1,499	1,530	1,649	1,407	1,239
March.....	1,081	1,408	1,702	1,594	1,683	1,841	1,454	1,358
April.....	1,316	1,572	1,878	1,912	1,931	1,941	1,661	1,538
May.....	1,397	1,054	1,908	1,946	2,027	1,939	1,702	1,467
June.....	1,468	1,844	1,960	2,034	2,059	2,078	1,699	1,484
July.....	1,506	1,897	1,947	2,092	2,075	2,068	1,709	1,485
August.....	1,524	2,016	1,918	1,928	2,028	1,996	1,651	1,415
September.....	1,508	1,979	1,888	2,026	1,939	1,964	1,694	1,392
October.....	1,527	1,995	1,927	1,989	1,813	1,890	1,671	1,392
November.....	1,468	1,913	1,756	1,846	1,745	1,754	1,593	1,294
December.....	1,365	1,744	1,587	1,670	1,630	1,497	1,564	1,142

Data of the average number of employees, the maximum and minimum, and the variation from maximum, are shown in Table 9. The average number of persons employed varied from 1,339 in 1922 to 2,232 in 1914. Considering the last five years, the average number employed was 1,833 in 1925, 1,835 in 1926 and in 1927, 1,593 in 1928, and 1,363 in 1929.

The month of maximum employment was June in 1914, 1921, 1924, and 1927; July in 1915, 1917, 1925, 1926, and 1928; August in 1916 and 1923; October in 1922; November in 1920; April in 1929; and May in 1918 and 1919. The month of minimum employment was January in 1918, 1920, 1922, 1925, 1927, and 1928; February in 1915, 1916, 1924, and 1926; May in 1923; November in 1914; and December in 1917, 1919, 1921, and 1929.

The variation from maximum ranged from 286, or 19.5 per cent, in 1921, to 962, or 47.7 per cent, in 1923. The variation was 628, or 30.0 per cent, in 1925; 545, or 26.3 per cent, in 1926; 674, or 32.4 per cent, in 1927; 403, or 23.6 per cent, in 1928; and 396, or 25.7 per cent, in 1929.

The percentage variation from the maximum for each year is shown in Chart 2 (p. 16).

TABLE 9.—AVERAGE NUMBER EMPLOYED AND MAXIMUM AND MINIMUM NUMBER EMPLOYED IN SANDSTONE QUARRIES, 1914 TO 1929

Year	Average of 12 monthly reports	Maximum		Minimum		Variation from maximum	
		Number	Month	Number	Month	Number	Per cent
1914.....	2,232	2,518	June.....	1,871	November..	647	25.7
1915.....	2,054	2,291	July.....	1,666	February..	625	27.3
1916.....	1,865	2,060	August....	1,615	do.....	445	21.6
1917.....	2,118	2,322	July.....	1,773	December..	549	23.6
1918.....	1,783	1,980	May.....	1,563	January....	417	21.1
1919.....	1,625	1,791	do.....	1,392	December..	399	22.3
1920.....	1,612	1,750	November..	1,346	January....	404	23.1
1921.....	1,383	1,468	June.....	1,182	December..	286	19.5
1922.....	1,339	1,527	October....	941	January....	586	38.4
1923.....	1,669	2,016	August....	1,054	May.....	962	47.7
1924.....	1,802	1,960	June.....	1,535	February..	425	21.7
1925.....	1,833	2,092	July.....	1,464	January....	628	30.0
1926.....	1,835	2,075	do.....	1,530	February..	545	26.3
1927.....	1,835	2,078	June.....	1,404	January....	674	32.4
1928.....	1,593	1,709	July.....	1,306	do.....	403	23.6
1929.....	1,363	1,538	April.....	1,142	December..	396	25.7

Fire Clay

THE number of fire-clay mines reporting for each year is shown in Table 10. These represent practically all of the fire-clay mines in the State. There were three which failed to report in 1914, four in 1915, two in 1918, and one in each of the years 1920 to 1925, inclusive, and 1927 to 1929, inclusive. Because the owners did their own work, there were three mines not included in 1919 and two not included in 1920.

TABLE 10.—NUMBER OF FIRE-CLAY MINES REPORTING FLUCTUATION OF EMPLOYMENT, 1914 TO 1929

Year	Number of mines	Year	Number of mines	Year	Number of mines	Year	Number of mines
1914.....	89	1918.....	100	1922.....	99	1926.....	110
1915.....	89	1919.....	104	1923.....	110	1927.....	105
1916.....	103	1920.....	97	1924.....	108	1928.....	112
1917.....	112	1921.....	98	1925.....	108	1929.....	108

The number of persons employed in fire-clay mining on the 15th of each month for each of the 16 years is shown in Table 11.

TABLE 11.—NUMBER EMPLOYED IN FIRE-CLAY MINING ON THE FIFTEENTH OF EACH MONTH, 1914 TO 1929

Month	1914	1915	1916	1917	1918	1919	1920	1921
January.....	1,143	889	1,099	1,571	1,139	1,032	1,227	894
February.....	1,136	842	1,129	1,618	1,128	1,079	1,180	842
March.....	1,187	1,003	1,192	1,653	1,187	1,038	1,240	926
April.....	1,302	1,042	1,248	1,646	1,186	1,006	1,255	970
May.....	1,415	1,117	1,254	1,650	1,218	1,152	1,148	1,062
June.....	1,394	1,113	1,152	1,630	1,247	1,133	1,095	1,090
July.....	1,421	1,074	1,287	1,615	1,212	1,134	1,017	985
August.....	1,440	1,039	1,294	1,632	1,215	1,155	976	1,030
September.....	1,386	1,072	1,273	1,591	1,127	1,238	951	1,065
October.....	1,361	1,062	1,328	1,577	1,122	1,226	993	1,001
November.....	1,265	1,108	1,328	1,578	1,115	1,206	948	1,024
December.....	1,151	1,132	1,357	1,461	1,092	1,103	996	1,057

TABLE 11.—NUMBER EMPLOYED IN FIRE-CLAY MINING ON THE FIFTEENTH OF EACH MONTH, 1914 TO 1929—Continued

Month	1922	1923	1924	1925	1926	1927	1928	1929
January.....	887	1,295	1,542	1,596	1,603	1,583	1,365	1,315
February.....	888	1,373	1,594	1,586	1,646	1,642	1,414	1,392
March.....	1,040	1,401	1,649	1,618	1,710	1,699	1,526	1,465
April.....	1,084	1,428	1,662	1,682	1,754	1,761	1,684	1,488
May.....	1,166	1,532	1,617	1,780	1,743	1,699	1,741	1,538
June.....	1,232	1,584	1,611	1,766	1,688	1,682	1,701	1,580
July.....	1,148	1,519	1,493	1,711	1,647	1,640	1,682	1,565
August.....	1,191	1,474	1,543	1,748	1,609	1,722	1,699	1,575
September.....	1,229	1,435	1,522	1,741	1,704	1,715	1,662	1,541
October.....	1,281	1,416	1,575	1,761	1,698	1,647	1,604	1,528
November.....	1,254	1,375	1,580	1,720	1,610	1,590	1,530	1,523
December.....	1,270	1,358	1,582	1,727	1,560	1,636	1,428	1,305

Table 12 shows the average number employed, the maximum and minimum number employed, and the variation from the maximum in each year. The average number employed varied from 996 in 1921 to 1,703 in 1925. In 1926 the average was 1,664; in 1927 it was 1,668; in 1928 it was 1,586; and in 1929 it was 1,485.

The month of maximum employment was April in 1920, 1924, 1926, and 1927; May in 1925 and 1928; June in 1918, 1921, and 1923; July in 1929; August in 1914; September in 1919; October in 1922; December in 1915 and 1916; and March in 1917. The month of minimum employment was January in 1916, 1919, 1922, 1923, 1927, and 1928; February in 1914, 1915, 1921, and 1925; July in 1924; November in 1920; and December in 1917, 1918, 1926, and 1929.

The variation from maximum was 194, or 10.9 per cent, in 1925; 194, or 11.1 per cent, in 1926; 178, or 10.1 per cent, in 1927; 376, or 21.6 per cent, in 1928; and 290, or 18.2 per cent, in 1929.

TABLE 12.—AVERAGE NUMBER EMPLOYED AND MAXIMUM AND MINIMUM NUMBER EMPLOYED IN FIRE-CLAY MINING, 1914 TO 1929

Year	Average of 12 monthly reports	Maximum		Minimum		Variation from maximum	
		Num-ber	Month	Num-ber	Month	Num-ber	Per cent
1914.....	1,300	1,440	August.....	1,136	February.....	304	21.1
1915.....	1,041	1,132	December.....	842	do.....	290	25.6
1916.....	1,245	1,357	do.....	1,099	January.....	258	19.0
1917.....	1,602	1,653	March.....	1,461	December.....	192	11.6
1918.....	1,166	1,247	June.....	1,092	do.....	155	12.4
1919.....	1,133	1,238	September.....	1,032	January.....	206	16.6
1920.....	1,086	1,255	April.....	948	November.....	307	24.5
1921.....	996	1,090	June.....	842	February.....	248	22.8
1922.....	1,139	1,281	October.....	887	January.....	394	30.8
1923.....	1,433	1,584	June.....	1,295	do.....	289	18.2
1924.....	1,581	1,662	April.....	1,493	July.....	169	10.2
1925.....	1,703	1,780	May.....	1,586	February.....	194	10.9
1926.....	1,664	1,754	April.....	1,560	December.....	194	11.1
1927.....	1,668	1,761	do.....	1,583	January.....	178	10.1
1928.....	1,586	1,741	May.....	1,365	do.....	376	21.6
1929.....	1,485	1,595	July.....	1,305	December.....	290	18.2

Gypsum

THE reports from gypsum mines include all of such mines in the State, embracing four mines from 1914 to 1918, and three mines from 1919 to 1929. Table 13 shows the average number of persons employed, the maximum and minimum number employed, and the variation from the maximum for each year.

TABLE 13.—AVERAGE NUMBER EMPLOYED AND MAXIMUM AND MINIMUM NUMBER EMPLOYED IN GYPSUM MINING, 1914 TO 1929

Year	Average of 12 monthly reports	Maximum		Minimum		Variation from maximum	
		Num-ber	Month	Num-ber	Month	Num-ber	Per cent
1914.....	273	315	August....	237	February..	78	24.8
1915.....	369	408	June.....	328	November..	80	19.6
1916.....	287	320	November..	239	January....	81	25.3
1917.....		287	June.....	173	February..	114	39.7
1918.....	162	196	May.....	119	November..	77	39.3
			June.....				
			July.....				
1919.....	167	202	November..	133	January....	69	34.2
1920.....	192	237	do.....	162	do.....	75	31.6
1921.....	259	310	September..	213	do.....	97	31.3
1922.....	229	256	do.....	184	do.....	72	28.1
1923.....	255	275	July.....	227	April.....	48	17.5
1924.....	269	299	do.....	158	January....	141	47.2
1925.....	276	307	do.....	232	February..	75	24.4
1926.....	249	281	August....	222	do.....	59	21.0
1927.....	229	259	February..	205	December..	54	20.8
1928.....	191	212	January....	174	November..	38	17.9
1929.....	177	188	May.....	164	December..	24	12.8

STABILIZATION OF EMPLOYMENT

Program for Stabilization of Railroad Shop Employment

THE April, 1930, convention of the Railway Employees' Department of the American Federation of Labor adopted a comprehensive program for the stabilization of railroad shop craft employment.¹ The special committee which submitted the program divided the problem into the following parts:

(1) Slack in employment resulting from improved machinery, lengthening of engine and train runs, elimination of shops and round-houses, consolidation of facilities, and other changes of a similar character.

(2) Irregularity of employment, due mainly to fluctuations in railway traffic, which are closely related to business conditions, climate, weather, and other factors.

The specific measures presented for dealing with part 1 are reduction in hours, reduction in the number of apprentices, lengthening of apprenticeship, gradual elimination of helpers, and vacations with pay.

The suggested solution for part 2 includes an agreement for a minimum force, railroad work in railroad shops, and a maintenance reserve.

A digest of the report embodying the new program is given below:

Reduction in hours.—The committee holds that the most effective method of decreasing unemployment in the crafts under discussion is the adoption of the 40-hour week and recommends certain rules for guidance when negotiating agreements for such a week for shopmen.

Apprentices.—According to the committee, more mechanics are being placed on the market than industry can absorb. In this connection the following, among other rules, are recommended for the guidance of those negotiating agreements with managements:

Applicants for regular apprenticeship shall be between 16 and 21 years of age, and, if accepted, shall serve 5 years of 250 days each calendar year. If retained in the service at the expiration of their apprenticeship they shall be paid not less than the minimum rate established for journeyman mechanics of their respective crafts.

In selecting helper apprentices seniority will govern and all selections will be made in conjunction with the respective craft shop committees.

The ratio of apprentices in their respective crafts shall not be more than 1 to every 10 mechanics in any one shop where apprentices may be employed.

Fifty per cent of the apprentices may consist of helpers who have had not less than two consecutive years' experience as a helper at the point where employed at the time application for apprenticeship is made.

They shall serve 4 years, a minimum of 250 days each calendar year.

Gradual elimination of helpers.—The committee was not able to agree upon rules to apply to this important problem and recommends that the matter be left to the respective crafts to work out as they wish.

¹ Railway Carmen's Journal, Kansas City, Mo., June, 1930, pp. 229-233.

Vacations with pay.—The following rule is also recommended for the guidance of committees negotiating agreements:

"All employees covered by Federated Shop Crafts agreement who have had one year or more service with the company shall have two weeks' annual vacation with pay. During the month of January each year, representatives of the employees and company will confer for the purpose of adopting effective dates for the vacation period. Running repair and train yard employees shall file application for vacation period in the month of January each year, stating time they prefer to take vacation. Seniority will govern for preferred vacation dates. All positions made vacant by employees being on vacation shall be filled with furloughed men."

Establishment of a minimum force.—In the judgment of the committee, a good definition of a basic or minimum force would be "that force of machinists, blacksmiths, boilermakers, carmen, electricians, sheet-metal workers, their helpers and apprentices, every member of which can be assured, at the beginning of each year, of a steady job throughout the entire year without loss of time." An understanding as to the number in such force and its distribution would be arrived at by the general committee of employees and the representatives of management before January 1 of each year.

Railroad work in railroad shops.—It is recommended by the committee that the convention approve the following policies for all railroads:

The inauguration of a program of building, modernizing, converting, and repairing sufficient locomotives, cars, and other movable equipment to stabilize employment throughout the year; and

The manufacture, so far as possible, by the railroads of as many parts as may be required for such building, modernizing, converting, and repairing of their rolling stock instead of meeting these needs by purchase from outside companies.

The making of the two preceding proposals a matter of negotiation by the Railway Employees' Department and all affiliated system federations.

The committee also recommends that the department make a thorough survey concerning the character and volume of work at present being done on various railroads in the way of building, modernizing, and converting locomotives and cars in railroad shops and the different kinds of materials used in this connection, and also an investigation to determine to what extent other kinds of equipment are being at present repaired by the railroads.

Maintenance reserve.—Certain railroads, the committee reports, already have to some extent a policy substantially equivalent to a maintenance reserve when they repair and store locomotives and cars, but in the case of most of the roads this scheme does not seem to be as well regulated as it might be. In the judgment of the committee, therefore, each system federation as well as the Railway Employees' Department should make every effort to educate railway managements to take up the practice of budgeting their annual equipment repair expenditures in such a way as to bring about the greatest regularity possible in shop-craft employment throughout the year, in view of the total annual business of the carrier in question.

Date for inaugurating program.—Steps should be taken immediately, the committee believes, for the regularizing of shop-craft employment through the establishment of a minimum force, railroad work in railroad shops, and the budgeting of maintenance expenses on an annual basis. In regard to the proposed movement for the shorter work day and week and vacations with pay, the committee expresses doubt as to the desirability of inaugurating such a campaign at once in view of the prevailing economic conditions in the country, and recommends that "the date for initiating this program be left to the judgment of the executive council of the Railway Employees' Department."

Stabilization Plan of Baltimore & Ohio Railroad Shopmen

ACCORDING to reports in the trade journals, a number of railroads have adopted the shorter work week for their shop employees for a limited period, with a view to stabilizing employment.

February 10, 1930, the Baltimore & Ohio Railroad and Shop Craft System Federation No. 30 signed an agreement reducing the number of hours weekly in lieu of a reduction in the force.¹ On June 18 a new agreement was made by this company and its shop employees providing for a further reduction in the number of hours weekly. This agreement, affecting approximately 12,495 employees, will remain in effect until September 30, 1930. The agreement is as follows:

In conference in office of chief of motive power and equipment this date it was agreed that forces now working 48 hours per week will have their hours reduced to 40; effective Monday June 23 and to continue on that basis until September 30, 1930.

Forces coming under this agreement will lose one day during the course of the week, forces to be rotated to meet local needs, this to be arranged between local management and local committee.

The present practice of allowing employees assigned to drop pit and machine shop work in roundhouses to lay off on Saturdays to be continued.

It must be understood that all employees involved in above must lose one day per week otherwise they will be paid overtime for all hours worked over 40 hours per week. This will not affect the practice now governing Sunday and holiday work.

Extra boards will be continued, but must not be used for the purpose of filling vacancies caused by the 1-day lay-off by regular forces covered in this agreement.

Prior to September 30, 1930, conference will be held to determine practice to be followed during remainder of year.

New York Committee on Stabilization of Industry

LATE in March, 1930, the Governor of New York announced the appointment of the Committee on Stabilization of Industry for the Prevention of Unemployment with the following members: Henry Bruere, vice president of the Bowery Savings Bank, New York City; Maxwell Wheeler, vice president of the Larkin Co., Buffalo; Ernest Draper, vice president of Hills Bros., Brooklyn; Henry H. Stebbins, jr.; John Sullivan, president of the New York State Federation of Labor; and, ex officio, Frances Perkins, State industrial

¹ See Labor Review, April, 1930, p. 66.

commissioner. A digest of the preliminary report¹ of the committee and excerpts from a later report² are given below.

Preliminary Report

Before presenting its long-time program, the committee, in its preliminary report, proposes to employers as immediate measures that they should—

1. Avoid reductions of workers which are not immediately necessary, remembering that efficient operation is rarely attained through sudden, drastic fluctuations, either up or down, of the working force.
2. Speed repairs, renovation, and construction.
3. Use some or all of the workers who would otherwise be released, for "Spring housecleaning" of plant and office.
4. Work the full force part time rather than part of the force full time.
5. Manufacture for stock to the limit of economic wisdom.

When lay-offs seem inevitable, it is suggested by the committee—

1. That as among employees whose ability is approximately equal, those with dependents and those of long service be the last to be released.
2. That, in all practicable cases, a "dismissal wage" be paid, or, at least, two weeks' notice be given. It is the policy of one well-known company, when a plant is closed or a process discontinued, to pay one week's wage for each year of service to any employee with 15 years or more of service, and to pay a week's wage for each year of service to any employee, 45 years or more of age, with 10 years' service.
3. That employees who are laid off be given the benefit of every possible aid by the employer in finding work elsewhere.

In connection with its long-time program the committee makes the following recommendations:

1. That the idea of steady year-round work be so incorporated in business men's thinking as to become of outstanding importance in the employer's everyday planning and action;
2. That encouragement be given to the cooperative activities of citizens working through their various city and town organizations, similar to the recent activities of the citizens' associations of Buffalo, Rochester, and Albany;
3. That State and municipal governments pay greater attention to the planning of their purchasing and construction activities, with a view to postponing large contracts in periods of prosperity and speeding up such contracts when times are depressed;
4. That the State employment office system be carefully studied in order that its scope may be extended and its effectiveness enhanced; and
5. That the committee continue to exist until January 1, 1931, previous to which date it expects to submit a more comprehensive report.

After presenting several practical examples of employment stabilization, the committee suggests that, in order to reach some definite conclusions on the problem of regularization in their own establishments, executives ask themselves such questions as the following:

1. Is our business seasonal?
2. If so, at what seasons of the year is our business most slack?
3. What measures can we take to speed up our business during these slack seasons?

¹ Press release of Apr. 21, 1930.

² New York. Industrial Commissioner. The Industrial Bulletin, June, 1930, pp. 251, 252

(a) Can we, for instance, stretch out our sales peaks over a longer number of months (1) By advertising? (2) By some device of salesmanship? (3) By some device of distribution? (4) By price discounts, etc.?

(b) Can we introduce a new product that will sell well in our slack season and yet fit into our general business?

(c) Can we adapt our present products for other uses than those now in use and so stretch out the buying season?

(d) Can we manufacture for stock on staple lines, or can we introduce staple lines as new products which will lend themselves for stock manufacturing?

(e) Can we gain a longer view of our business by budgeting our sales, financial, and manufacturing operations?

4. What other changes will a stabilizing plan require in—(a) Manufacturing? (b) Purchasing? (c) Financing? (d) Office personnel?

Cooperation of Citizens

THE committee quotes from the reports of three New York cities—Buffalo, Rochester, and Albany—in illustration of what may be accomplished through the cooperative action of citizens during business slumps. In Buffalo the chamber of commerce has been in close contact with all the important industries of that city and has secured prompt information on new industrial developments. It has also kept in touch with the successful activities of other cities in coping with the unemployment problem and has urged manufacturers to maintain production schedules as far as possible. Many of the chamber's members have been employing all their workers on part time instead of dismissing some of them. In certain industries rotation of jobs has been tried. The chamber of commerce, the Industrial Relations Association, and the University of Buffalo have been collecting figures on the number of the unemployed in that city,³ while the chamber and the Industrial Aid Association have been urging the stimulation of small-job campaigns. The cooperative organization and supervision of public and private philanthropic work are being carried on by the Buffalo Foundation and the Industrial Aid Bureau, while the latter and the Industrial Relations Association are establishing free employment clearing houses under public auspices. A considerable increase in local public works in Buffalo is also reported.

A Rochester civic committee on unemployment has been created with a full-time secretary. A temporary employment subcommittee has concentrated the attention of manufacturers, merchants, bank and office executives, city and county officials, and householders on the existence of emergency unemployment conditions and called on citizens to keep as many persons employed as practicable. A committee of 40 women has established contact with various organizations of women in Rochester and suggested, by radio and otherwise, standard emergency measures to be taken about the home, the yard, and the auto, to furnish jobs. The construction reserve committee, together with the community conference board, has tried to advance the starting of proposed public and private building projects in the 1930 program. The fact-finding subcommittee has been assembling information on unemployment indexes while the stabilization committee has been suggesting all kinds of emergency measures for the use of employers. This latter organization has also been working

³ For results of recent unemployment survey in Buffalo, see Labor Review, February, 1930, pp. 25-39.

out a permanent program in order to eliminate the need for unecomic temporary schemes.

Early in March, 1930, the Albany Chamber of Commerce appointed a committee to study the unemployment situation in that city and to make necessary recommendations to insure prompt action in future crises and to take measures to avert them. This committee has already recommended that the chamber of commerce include in its proposed industrial bureau a department to gather accurate monthly employment statistics to be made available to the New York State Department of Labor as a part of a system of accurate state-wide employment figures. The committee has appealed to Albany citizens and employers to make normal purchases, to have factories painted and repaired, and to reduce the hours and days of work, and has requested the municipal administration to begin public-work projects at the earliest possible moment. Among other activities of the committee is a campaign to educate the public in Albany on the whole subject of unemployment, particularly as to the methods adopted by progressive undertakings to stabilize employment and in regard to the efforts of other communities and countries to grapple with the unemployment problem. The committee will also present a report to the Albany Chamber of Commerce, recommending a plan of group organization and action, which will operate immediately in future crises.

State Responsibility

THE governor's committee on the stabilization of employment holds that it is clearly the responsibility of the State to cooperate with private business for the reduction of unemployment, by increasing public purchases and public works in depressed periods. After referring to certain inadequacies in the New York State employment service, the committee declares: "To fulfill its function in any program for the stabilization of employment, it is essential that the State service assume leadership in coordinating the work of all employment offices in the State, public, noncommercial, and commercial, and that it become an authoritative source of information on employment and industrial conditions, including public-work projects. To this end the cooperation of employers is essential."

As a result of a recent survey of the New York State Employment Service by the advisory committee on employment problems and the consequent recommendations, a reorganization of the service is under way.

The Committee as a Clearing House

THE governor's committee expresses the hope that with the submission of its preliminary report its duties have just begun. It desires to be a clearing house of information for employers and trade associations interested in the study of employment stabilization and to place itself at their service for conference purposes.

Survey of Existing Stabilization Methods

ONE of the first efforts of the committee was a questionnaire survey to determine what methods, if any, are being used by the manufacturing establishments of the State to reduce employment

fluctuations. The results of this survey are reported in the June, 1930, issue of the Industrial Bulletin of the New York Department of Labor.

Of the 1,900 firms in various manufacturing industries in New York State to which the questionnaire was sent, replies were received from 598. Only 292 of these 598 establishments reported that they had any plans to stabilize their labor forces. The committee thinks it is probable that many of the companies that did not reply or that stated they had no plan are actually using some of the more ordinary employment stabilization schemes. The following table summarizes the stabilizing methods reported:

EMPLOYMENT STABILIZATION PLANS IN 598 NEW YORK STATE FACTORIES
REPLYING TO CIRCULAR LETTER OF APRIL 16, 1930

Stabilization program	Number of—	
	Establishments	Employees
Firms replying:		
With one or more plans.....	292	122,606
With no plan.....	306	57,795
Total.....	598	180,401
Methods in operation:		
Part time.....	157	62,899
Manufacturing for stock.....	66	23,729
Sales forecast, forward planning.....	59	37,619
Transfer of employees.....	43	25,814
Supplementary products.....	9	4,463
Reduced prices.....	9	911
Standardized products.....	7	7,954
Advance orders.....	7	3,887
Sales effort.....	6	1,989
Diversified products.....	3	665
Miscellaneous.....	12	7,125

Data on establishments with schemes for regularizing employment, classified by industries, are given below:

NUMBER OF ESTABLISHMENTS REPORTING ON EMPLOYMENT STABILIZATION
PLANS, BY INDUSTRY

Industry	No plan		One or more plans	
	Number of establishments	Number of employees	Number of establishments	Number of employees
Stone, clay, and glass.....	8	746	13	5,872
Metals and machinery.....	55	14,420	91	47,695
Wood manufactures.....	35	3,906	29	5,344
Furs, leather, and rubber goods.....	24	3,698	22	4,817
Chemicals, oils, paints, etc.....	15	3,223	16	9,362
Pulp and paper.....	5	1,492	4	912
Printing and paper goods.....	39	11,401	18	5,895
Textiles.....	22	6,273	31	20,940
Clothing and millinery.....	45	5,278	41	13,619
Food and tobacco.....	53	6,461	25	7,732
Water, light and power.....	5	807	2	418
Total.....	306	57,795	292	122,606

On the whole, the reports from the establishments indicated a cooperative spirit. Some of the firms expressed regret that they had no substantial methods to submit for stabilizing employment. A

number of the companies took the attitude that they were at the mercy of the prevailing business conditions and were waiting for the situation to improve from the outside rather than attempting to cope with the problem from the inside. A few concerns offered suggestions for the relief of general unemployment such as increased regulation of the tariff and a fund created for mortgages.

The change in method from laying off a portion of the workers to placing them all on part time in slow periods shows a great development in the sense of social responsibility among employers. They are gradually abandoning the old "hire and fire" method where there was complete indifference to the workman. Of course, it is to the advantage of the employer to hold his trained force if possible, but there are other social motives mixed in for adopting the advanced methods of handling forces.

The committee points out, however, that the greater number of these concerns were still adopting temporary schemes to meet an emergency such as the one resulting from the recent industrial depression. Only a few establishments are developing positive methods for the stabilization of employment. When such constructive measures are better known, the committee believes they will gradually become an essential part in the organization of any industry.

Stabilization of Employment, and Unemployment Pension Plan of the General Electric Co.

A PLAN¹ covering the employment stabilization policies of the General Electric Co. and a new unemployment pension plan was announced by the president of the company June 16, 1930.

The effort to stabilize employment is not new on the part of the company, as it has been the practice for years, it is stated, to manufacture for stock to avoid seasonal fluctuations and to produce, even in times of serious depressions, such special apparatus as turbo-generator units with the hope of future sales. This has been done because of the realization that the first step in solving the problem of unemployment in industry is to use every available means of keeping men at work. Every effort is to be used to carry out such plans more effectively in the future, it is stated, in addition to the special plan for the relief of employees for whom no work can be found in times of general industrial depression. Committees of leading workmen in various plants of the company have contributed to the working out of the plan, which is to rest on joint and equal contributions by employees and the company and joint participation in its administration.

The plan provides for aid through group action to those workers who are in need or require temporary loans, or who become unemployed, or for whom only part-time work is available, and, in times of unemployment emergency, cooperation and assistance from employees not usually affected by unemployment, and by the company. The plan may be adopted by each plant as a unit, by a majority vote of its eligible employees. It has been adopted or is being considered by all the plants of the company, and is also quite generally favored by departments which are not usually subject to lay-offs in periods of unemployment and whose members would not make normal contri-

¹ General Electric News, June 20, 1930.

butions to the fund but who would contribute during the unemployment emergencies. In presenting the plan to the employees the president of the company, Mr. Gerard Swope, states that the plan is not final in form nor in substance and may be modified by joint action of the employees and the company.

The plan for the stabilization of employment provides that when business is increasing the working force shall be increased as slowly as possible, transfers shall be made to especially busy departments from other departments, overtime shall be worked, and plant renewal and maintenance postponed.

When work begins to fall off hiring should be stopped at once, overtime stopped, and workmen transferred from slack to busier departments. In addition the sales department should try to secure orders for future delivery, standard apparatus should be manufactured for stock adjusted to expectation of the next two years, stocks in all factory and district warehouses should be brought up to this maximum, maintenance and repair work should be resumed, the normal week should be cut generally and gradually, and the construction of increased plant facilities, using the plant force so far as possible, should be undertaken. In dismissing employees those with less than one year of service should be dropped first and not less than one week's notice of dismissal should be given.

Unemployment Pension Plan

EMPLOYEES with service of one year or more with the company are eligible for participation in the plan. The contributions of employees participating in the plan amount to approximately 1 per cent of their actual weekly or monthly earnings for a period of three years after joining the fund, but only for so long as such earnings are 50 per cent or more of the employee's average full-time earnings. The company will contribute an amount equal to that paid in by the employees and will guarantee 5 per cent annual interest thereon, credited semiannually on average monthly balances during the period. For two years after the inauguration of the plan the company will also pay the expenses of administering it, including time of men necessary for its administration. The plan will be administered in units of each works and will be under the management of a board of not less than 4 nor more than 16 members, half of whom are elected by the employees and the other half appointed by the company.

No payment is to be made from the fund for at least six months after its creation and thereafter only to employees who have made their normal payments for six months.

Three per cent of the normal contributions to the fund will be available for payment to employees or to former employees who have been retired on old-age or disability pension who are in need, and loans not to exceed \$200 may be made to employees who have contributed for at least six months to the fund. Repayment of such loans begins as soon as the contributing employee is given full-time work by the company.

Unemployment benefits are not paid for the first two weeks of unemployment, but after that time payments to a contributing employee amount to 50 per cent of his average full-time weekly or

monthly earnings, with a maximum of \$20 per week. Such payments may be made for a maximum period of 10 weeks in 12 consecutive months. Employees working part time and receiving less than 50 per cent of their average earnings may receive the difference between their actual earnings and the amount to which they are entitled.

When contributing employees are temporarily laid off or are working part time and payments made from the fund for unemployment amount to 100 per cent or more of the average normal weekly receipts, normal collections from contributing employees shall cease. The company upon notification of this fact by the administrators of the fund will then declare that an unemployment emergency has arisen. As long as payments from the trust fund amount to 100 per cent or more of the average normal weekly receipts and until the total of the trust is not less than 75 per cent of the previously attained maximum, all employees at the particular works who are receiving 50 per cent and over of their average weekly or monthly full-time earnings shall pay approximately 1 per cent of their earnings into the fund. This includes all the clerical and supervisory staff, including the highest officials of the company at the particular works. In addition all the general and district commercial, general manufacturing, engineering, and administrative employees of the company not on a particular works pay roll shall pay a proportion of the above percentage, which shall be determined by the ratio of the average earnings of the contributing employees of the particular works to the total pay roll of the eligible employees of all works of the company. If the average earnings of the contributing employees of the particular works amount to 20 per cent of the total pay roll, for example, then 20 per cent of 1 per cent will be deducted from the pay of such general employees. The company will pay into the fund an amount equal to the above contributions.

After an emergency is over the administrators of the fund shall decide upon the renewal of normal payments from contributing employees and the length of time they shall continue.

Provision is also made for the repayment of the contributions of an employee less the same proportion of his normal payments that the total disbursements of the fund have been to the total normal collections and less any unpaid loans and payments made to him, in case an employee leaves the company, is discharged, or is retired on old-age or disability pension or disability relief.

Stabilization of Employment in Four Large European Ports

AN ACCOUNT of the methods taken to regulate the employment of dock labor at the ports of Hamburg, Liverpool, Rotterdam, and Antwerp is published in the April, 1930, issue of the *International Labor Review*.¹ The details of the plans in operation at the different ports are summarized below.

¹ International Labor Office. *International Labor Review*, April, 1930, pp. 519-539: "Employment and unemployment in some great European ports," by Max Gottschalk.

Hamburg

ON MAY 22, 1906, the employers' organizations of the port of Hamburg amalgamated in a single organization called the Hafenbetriebs-Verein, the main objects of which were "to organize the distribution of labor employed in the port, to abolish the use of public houses for engaging dockers, and to regulate the relation between supply and demand."

The employment stabilization plan adopted at Hamburg is entirely an employers' scheme, which, however, is applied through a joint committee of five representatives of the employers' organization and five of the workers, nominated by the executive of the Hamburg port council (Hafenbetriebsrat-Vorstand) set up under the works councils act.

All of the workers employed in the port are controlled by the Hafenbetriebs-Verein, with the exception of those working on the docks and quays of the Hamburg State custom house. The workers are divided into three classes: Permanent workers (Feste Arbeiter), reserve workers (Hilfsarbeiter), and casual workers (Gelegenheitsarbeiter). The permanent workers are registered with the Hafenbetriebs-Verein. The second, or reserve, class is registered with the card committee, which is composed of three each of the employers' and the workers' representatives on the joint committee. Eight kinds of workers are recognized for the reserve class: Stevedores, quaymen, lightermen, coal porters, warehousemen, grain porters, loading inspectors, and ship and boiler cleaners. The number of reserve workers is limited to the number of workers employed in the port at times of normal activity. As a general rule, no docker is registered as a reserve worker unless he has worked at least 13 weeks in the port and no cards are issued to workers under 21 years of age. The cards vary in color with the trade represented. All cards must be presented for checking during the first 10 days of each month and workers who do not comply with this rule are removed from the roll.

Permanent workers are chosen by the employers from these card holders, the cards being kept by the employers as long as the workers are in their employ. When a worker loses his permanent status through dismissal or other cause, he automatically reverts to the reserve class. Reserve workers who are employed on temporary work must be dismissed by an employer as soon as the work is completed.

The reserve workers have the privilege of registering at any one of 14 "calling-on" offices of the Hafenbetriebs-Verein. These offices, several of which register workers of only one or more trades, are near the work places and are open from 6 a. m. to 6 p. m. Only workers with cards are allowed on the premises. Application for employment may be made personally, in writing, or by telephone.

Employers agree to engage the men they require through the calling-on offices only, and workers with cards are not permitted to seek or accept work except through these offices. In applying for help the employers must specify (1) the number of workers required, (2) where they have to go, (3) the hour the work begins, and (4) the nature of the work. Foremen (Vitzen) are usually sent to select the workers, who, however, are "always chosen in the order of the num-

bers on their cards, and each time the call begins with the last number of the preceding day. This system insures the engagement of elderly workers who are still quite fit for work in the docks, but whom the Vitzen would otherwise tend to reject." Applications which can not be filled by the calling-on offices are telephoned to a central clearing house, which attempts to fill them. If the reserve supply of labor is exhausted through an exceptional rush of work, the Hafenbetriebs-Verein may appeal to the official labor exchange. Workers obtained through that exchange may not be employed for more than three consecutive days. Employers are not permitted to apply direct to the official labor exchange.

When a worker is engaged he is given a contract of employment and the employer must pay his wages even though no work is supplied during the period for which he was employed. The worker must consider himself dismissed when his card is returned to him by the employer or his representative.

Disputes caused by the withdrawal of cards are handled by the card committee, appeals being submitted to the conciliation committee of the port. When work is slack no employment card may be withdrawn except for disciplinary reasons. Only about 4 per cent of the workers removed from the register each month for various reasons are struck off for the purpose of discipline, the other removals being due to departures, sickness, changes of occupation, etc.

The number of workers that might be registered was fixed by the Hafenbetriebs-Verein after an inquiry among the employers as to their normal requirements, and any change in the number is made by that organization.

Dockers in the reserve class who fail to obtain work by applying at the proper time at the calling-on offices must obtain from the labor exchange employment cards, which are marked for each half day of unemployment. No worker is entitled to have his card so marked if he accepts work and does not present himself for it at the right time, or if he does not apply for work at the calling-on office at the right time. Cards are marked only at the offices where the holders are registered. The methods used are said to be quite effective in checking the genuineness of unemployment. The dock workers are eligible to unemployment benefit under the national unemployment insurance act which became effective July 16, 1927.

Of the 15,872 workers registered on January 1, 1928, 5,944 had permanent employment. An average of 15,103 of the registered workers were employed throughout the year 1927.

Nearly all of the employers make their wage payments through the offices of the Hafenbetriebs-Verein. The workers are paid daily and when they leave their work they are given wage slips, filled in by the employer, to present to the pay office, which cashes them after deducting the income tax and affixing the necessary unemployment insurance and sickness and invalidity insurance stamps. The employers' contributions to the insurance funds are also collected and forwarded by the offices of the organization.

The pay offices of the Hafenbetriebs-Verein are reported to have paid an average of 7,769 workers a day during 1927, the total amount disbursed during the year amounting to 18,500,000 marks (\$4,406,700). Nearly 2,000,000 marks (\$476,400) were paid into the

unemployment and sickness and invalidity insurance funds and over 500,000 marks (\$119,100) of income tax were collected.

The Hafenbetriebs-Verein pays compensation, during the 3-day waiting period required by law, to workers injured in accidents.

The measures described were accepted on behalf of the workers by the National Transport Union and the Central Association of Engineers and Stokers of the Reich.

The writer comments as follows on the results of the Hamburg plan:

The system in force in the port of Hamburg is perfectly suited to local requirements. One of its main features is its great flexibility. When work shows a tendency to increase the association is informed by its members and immediately arranges for an additional issue of employment cards. When the contrary is the case and work slackens, the number of card holders is progressively reduced and workers struck off the registers for various motives are not replaced.

This system has had the good effect of guaranteeing regular employment to a large number of dockers and of insuring that skilled dockers are given preference over the unskilled. The work is better done and accidents are less numerous. The centralized system of paying wages saves the workers a great deal of time, as they would otherwise be obliged to go to a number of employers in succession; the custom of paying in public houses is also avoided. The employer derives much benefit from the centralization of the accounting operations.

Taken as a whole, therefore, the Hamburg system gives satisfaction to all parties concerned.

Liverpool

MEASURES to regulate the employment of dock workers at the port of Liverpool were adopted in 1912 by employers and workers, the board of trade, and the treasury, based on the system in effect at Hamburg. The majority of the employers joined the scheme and agreed to hire only registered dockers.

Six clearing houses or exchanges for the registration of the workers were set up in the vicinity of the more important enterprises, and included offices and large roofed-in shelters for the workers. The staff of these clearing houses is engaged by the board of trade. Each clearing house has a committee composed of five representatives each of employers and workers. The manager of the clearing house acts as secretary, and the chairman (who has no casting vote) is chosen by agreement between the two sides. Matters on which the committee can not agree are referred to the joint committee of the port, which consists of 12 representatives of employers and 12 of the Transport and General Workers' Union.

The total number of workers to be registered was originally set at 25,000, but in the years following the World War there was a decline in the work of the port, and an inquiry made in 1925 showed that 21,000 workers were sufficient and the number of registrations was reduced to that figure.

The men to be registered are chosen by the clearing houses. Each worker must submit an application on a printed form, giving his name, address, age, previous employment, the work for which he is fitted, and the part of the port in which he wishes to work. The application must be indorsed by the transport workers' union, to which all of the dockers belong, and also by an employer. If a worker is unable to obtain these two indorsements, which seldom happens, he may appeal to the joint committee. When an application is approved, the worker receives a numbered metal tally entitling him to be engaged at one of the clearing houses. He retains possession

of this tally as long as he is worthy of it or until he leaves the docks. Any man who leaves dock work for more than six weeks is removed from the list. The register is revised periodically to keep it up to date.

In filling vacancies, preference is given first to sons of deceased dockers, then to sons of dockers, and then to ex-service men.

Firms desiring a nucleus of more or less permanent workers are permitted to choose them, and these men are given first chance of employment on any work the firms have to do.

To obtain employment the workers must present themselves at a stand in the docks belonging to one of the various companies. The foreman of the company first engages the men who are on the company's list, after which selection is made from the other tally holders present. Each worker hired is given a "company's tally," which he turns in to the clearing house as a receipt for his wages when he is paid at the end of the week.

Following each call at the calling-on stands, workers who are not engaged must report to the clearing houses with which they are registered, which try to fill any vacancies of which they are notified. When the workers report to the clearing houses they are given weekly unemployment cards which are marked twice a day, immediately after the morning and afternoon calls. One side of the card has spaces for each day of the week; on the other side are spaces for calculating the amount of unemployment benefit due and for the worker's signature as a receipt for payment. There are no special measures to provide against fraud, but if a worker should have his card marked too often his clearing-house tally would be withdrawn.

There is a central clearing house to which the local clearing houses may apply in case of a scarcity of labor, "which makes a final effort to satisfy all applications."

The clearing houses act as disbursing offices for the payment of wages. Wages are paid weekly and it is said that through a carefully worked out system 20,000 workers can be paid in less than an hour and a half. The workers' contributions for unemployment and health insurance are deducted from the amounts earned, and the employers' contributions are calculated and paid over to the insurance funds by the clearing houses. Questions arising out of the work in their respective areas are also dealt with by the clearing houses.

The initial cost of the clearing houses was borne by the board of trade, which also bears the expense of maintaining the system, except that the employers are required to pay a fee for the services of the clearing houses in paying wages and collecting insurance contributions.

If a trade dispute arises, the operation of the plan is suspended until a settlement is reached.

It is reported that the measures adopted work very well. The employers are assured of a supply of regular and experienced workers, which they have freedom in selecting, and they are relieved of much work through the centralized payment of wages. The Transport and General Workers' Union is said to do "all in its power to facilitate the working of the system."

Rotterdam

THE SYSTEM worked out for the handling of the dock-labor problem at Rotterdam is entirely an employers' scheme, formulated by the Scheepvaart Vereeniging Zuid, the organization to which the majority of the employers of the port of Rotterdam belong, and the workers are excluded from participation in its administration.

In the operation of the plan the workers are divided into four classes: Permanent workers, holders of blue work books, holders of yellow work books, and holders of weekly cards. The permanent workers, of whom there are about 5,000, are registered with the Haven Reserve, the port employment exchange. They may be dismissed with a week's notice, whereupon they revert to the category to which they formerly belonged. The holders of blue work books, numbering about 2,700, are selected from the better workers by the Haven Reserve. They may apply for work at one of the two employment offices set up by the Haven Reserve and are entitled to the unemployment benefits and sickness allowances provided by it.

The holders of yellow work books, numbering about 1,500, are chosen from dockers who have worked in the port for at least a year. They may also apply to the employment offices for work but are not entitled to unemployment or sickness allowances as are the holders of blue work books.

If the number of workers holding blue and yellow work books is not sufficient for the labor requirements, recourse is had to the remaining group of workers, who are given weekly cards. Possession of a weekly card gives the holder a right to apply to the employment offices for work but confers no other privileges.

The employment registers are revised every six months. Holders of blue work books who have proved unsatisfactory for this class may be transferred without explanation to the yellow work-book class, or the holders of yellow books may be given blue books, or the holders of weekly cards may be promoted to the yellow work-book class. At each revision of the register several hundred changes of this kind are made, usually as a result of satisfactory work, decisions regarding the changes being made by the manager of the Haven Reserve. Dissatisfied workers may appeal to the employers' association.

The employers agree to engage their workers only from the men registered by the Haven Reserve and are free to select them from any of the three classes of registered workers. It is estimated that "barely 5 per cent of the workers take jobs with employers who are not affiliated to the Haven Reserve." Employers who infringe the regulations are liable to fines ranging up to 100,000 florins (\$40,200).

An unemployed worker must be present at the three daily "call" periods of one of the employment offices, and he may not leave until each "call" is over. If he is absent, without just cause, from the morning call he can not ask to have his work book or card marked in the evening. The marking is done at the end of each call, on the premises of the Haven Reserve. If by the end of the week a worker's book or card has too many entries showing unemployment, the management of the Haven Reserve, in case of suspected fraud, may remind him that it is his duty to try to obtain work. If the management is convinced that he is voluntarily unemployed, he is denied unemploy-

ment relief. Workers who do not receive unemployment relief from the Haven Reserve may claim it from the municipal unemployment fund, but as a rule when payment has been refused by the Haven Reserve it is also refused by the municipal fund. "Abuses are thus practically nonexistent, as a man who does not work is liable to lose the privilege of registration, while the condition that he must attend at the employment office regularly, at the morning and afternoon calls, is a further safeguard."

In addition to its employment work and the payment of unemployment relief and sickness allowances, the Haven Reserve has worked out a system for the maintenance of discipline among the workers on the docks, in the port, and on board ship, and for the prevention of theft. Attention is also given to technical matters connected with the work of the port. A force of 40 inspectors is maintained. The cost of the theft-prevention work is borne by the employers who take advantage of the service. The payment of wages is centralized in the offices of the Haven Reserve.

The entire cost of administration is borne by the Haven Reserve, which also met the initial building expense. In 1927, unemployment relief payments to holders of blue work books amounted to 41,000 florins (\$16,443) and sickness allowances to 85,000 florins (\$34,090), the latter amount including sickness allowances paid by employers to their permanent workers. The total annual expenditure of the Scheepvaart Vereeniging Zuid, the port employers' federation, is said to be 800,000 florins (\$321,600), or 20 Dutch cents (0.004 cent, U. S. currency) per docker per day. The individual contributions of the 150 members of the federation vary from 25 florins (\$10.05) to 80,000 florins (\$32,160), according to the number of workers they employ.

The Haven Reserve does not deal with workers engaged in loading and unloading coal and ores, as they are continuously employed and the majority of them are permanently attached to the large companies that specialize in these operations.

It is reported that the employers are satisfied with the system which they have worked out. "The methods they have introduced have resulted in a considerable improvement in the standard of living of the workers of the port, while the quality of the work done has risen as a result of the process of selection that is always going on. A connection is established between the worker and his work, and his self-esteem makes him aim at being among the holders of blue work books. The fact that wages are paid weekly greatly reduces the temptation to spend them in the public house, the more so as the exact amount he has earned is noted in a pay book that the worker takes home with him." The workers, however, "complain that they have no voice in the decisions governing the engagement and dismissal of registered workers, and they ask that a joint committee should be set up similar to the one that formerly existed."

Antwerp

THE national emergency fund, which had been set up by the Belgian Government as a "free reinsurance fund for the primary funds of the voluntary unemployment insurance societies," had become apprehensive over the heavy demands made upon it on behalf of the dockers,

the great majority of whom were insured despite the fact that unemployment insurance is voluntary in Belgium, and had urged the employers and workers to adopt joint measures to regulate the employment of dock labor. After prolonged negotiations, the eight employers' associations and the three trade-unions of the port concluded an agreement on December 27, 1928, which became effective about the middle of 1929. The agreement provides for a joint committee composed of nine representatives each of employers and workers, appointed by the Minister of Labor on the recommendation of their respective groups. The chairman (who has no vote) is a magistrate appointed by the minister. There is an executive committee consisting of the secretary of the national committee of the port and two assessors, one employer and one worker, which settles all "difficulties of an urgent character arising between employers and workers."

The stipulation that dock work is to be reserved for men who make it their regular occupation is considered the most important provision of the agreement. The dockers are divided into three classes—class A, class B, and a nonregistered class—a further classification separating the stevedores from workers belonging to other specific trades. However, every docker must accept any kind of work offered if there is none available in his own trade, unless specially exempted. Class A consists of "workers who present themselves daily and men who are engaged for a fixed number of days per week or per month." They are given a registration card and are entitled to a pay book. Workers who apply for work only occasionally, and who have no immediate chance of regular employment, are placed in class B. Employers must give preference to class A and then to class B. If there is a shortage of labor in these two classes they may employ unregistered workers, who are then put in class B. A man in class B who has worked for at least 39 days during a period of three months may be transferred to class A. Every three months the committee fixes the number of workers to be admitted to each class. When the total number is 20 per cent more than the normal labor requirements, registration is suspended.

There are six employment centers, which are under cover, where all of the hiring of the workers is done.

To obtain work registered workers must apply at the employment centers, and if not engaged, must have their cards marked, for purposes of unemployment relief payments. It is expected that the new regulations "will considerably reduce unemployment among regular dockers and put a stop to the frauds and abuses which were formerly common in connection with unemployment benefit."

The agreement provides that night work shall be abolished as far as possible, and with this end in view regulates the hours worked by the different shifts and fixes the wage rates for the different classes of workers. Model employment contracts setting forth the duties and rights of the workers are outlined, and these contracts are the only ones considered valid by the national committee of the port.

The unemployment funds, it is said, also adopted regulations covering the payment of benefits, dating from June 5, 1929. "In future the unemployed will be checked and have their cards marked only on showing their pay books. The funds will also require these books to be shown before paying unemployment benefit. An unemployed

docker will be entitled to benefit as from the fourth half day of unemployment. But whatever the amount of unemployment, no benefit will be paid to a docker who has worked three nights during the week or whose weekly earnings at piece rates amount to 270 francs."

As the regulations adopted at Antwerp had been in effect such a short time, the writer did not attempt to pass judgment upon their results, although he states that there is every reason to believe that they will considerably improve the former state of affairs.

Special National Unemployment Committee for China

IN ORDER to cope with the increasingly serious unemployment problem in China, the Ministry of Agriculture and Mining and the Ministry of Industry, Commerce, and Labor of that country are jointly organizing a special committee to work out basic measures of relief.¹

Invitations will be extended to China's outstanding economic and industrial experts to serve on this committee. The ministries concerned will at once conduct an investigation into the number of jobless persons in various parts of the country and into the causes of their unemployment. The Ministry of the Interior is also devising a plan for presentation to the Executive Yuan, recommending that a number of Government factories be opened in order to furnish work for the unemployed.

¹ China, Ministry of Industry, Commerce, and Labor. Bureau of Industrial and Commercial Information. *The Chinese Economic Bulletin*, Shanghai, June 7, 1930, p. 295.

INDUSTRIAL AND LABOR CONDITIONS

Economic and Social Status of Borrowers from Small-Loan Companies

A STUDY of the records of 10,000 small loans was published recently by the Russell Sage Foundation as part of a general survey of the small-loan business.¹ The offices covered by the survey, which was made in 1922-23 by the questionnaire method, were located in 109 cities in 17 States and comprised, with a few exceptions, offices licensed under the uniform small-loan law or an equivalent statute.

Over half of the loans studied were made in cities of more than 100,000 population and very few of them in places having less than 25,000 population. The 10,000 questionnaires obtained were assumed to represent that many different individuals or households. Very few persons borrowing were recent arrivals in the city where the loan was taken out, over half (54 per cent) of the 8,181 borrowers (including 206 cosigners) reporting on length of residence in the city in which the loan was made having been there for 15 years or more, and 81 per cent for 5 years or more. Only one-half of 1 per cent had been in the city less than one month and only about 5 per cent less than one year.

Types of Borrowers

A TOTAL of 8,189, or 82 per cent, of the loans were made to married couples; 533 to individual men, either not married or not living with their wives; and 1,072 to individual women, not married or not living with their husbands; and 206 to cosigners not husbands and wives.

Eighty-five per cent of the borrowers were below 50 years of age. The individual male borrowers were on the whole a younger group than the married men, but the individual woman borrowers were in general older than either the married men or the individual men.

Eighty-three per cent of the loans were taken out by native white borrowers, 10 per cent by foreign-born white borrowers, and 6 per cent by Negroes. Sixty-six per cent of the borrowers were not only native white persons but had native fathers. Among the foreign-born white borrowers 21 years of age and over, the predominating nationalities were English, German, Irish, and Italian.

There were only 303, or 3 per cent, of the 10,000 borrowers who were not usually employed at a gainful occupation. The number gainfully employed does not include women engaged in housekeeping in their own homes but it does include boarding-house keepers. Forty-two of the 303 persons not usually gainfully employed were men and 261 were women. The number of employers taking out loans was 778; of employees, 8,101; and of self-employed persons, 717.

¹ Robinson, Louis N., and Stearns, Maude E. Ten thousand small loans. New York, Russell Sage Foundation, 1930.

Of the 9,574 gainfully employed borrowers for whom occupation was reported, 286 men and 3 women were engaged in agricultural pursuits. Of the 9,285 engaged in other industries, 260 men were employed in the extraction of minerals; 4,023 men and 187 women in manufacturing and mechanical industries; 1,407 men and 24 women in transportation; 1,105 men and 62 women in trade; 320 men and 2 women in public service; 210 men and 79 women in professional service; 427 men and 426 women in domestic and personal service; and 639 men and 114 women in clerical work.

Financial Status of Borrowers

ABOUT one-third of all of the borrowers owned real estate, but of these only 19 per cent owned it free of mortgage. Approximately 33 per cent of the married couples, 26 per cent of the individual men, and 32 per cent of the individual women were real-estate owners. The report states that as nearly one-fifth of the women were boarding or lodging-house keepers this may account for the large proportion owning real estate. Married men owned their property unencumbered less often than the other groups of borrowers, and when their property was subject to mortgage their equity in it was less. The median amount of equity for all of the borrowers together and for the group of married men separately was about \$1,500 and for the other groups about \$2,000. Approximately one-tenth of all of the borrowers owning mortgaged real estate had less than \$500 equity in their property and 60 per cent had less than \$2,000 invested.

Sixty-nine per cent of the borrowers rented the dwellings in which they lived, 24 per cent owned them subject to mortgage, 5 per cent owned them outright, and 2 per cent received them rent free or as part compensation for services rendered. The rentals paid ranged from \$5 to over \$100 per month. Some of the low rentals were for one room only and some of the high rates were for large houses used as lodging houses. The median for all renters fell between \$25 and \$30 and also for each of the separate groups except the individual men, for whom it was between \$20 and \$25.

About 80 per cent of all borrowers carried life insurance, the amounts varying from \$100 to over \$10,000, the most common amount, however, for all groups being \$500 to \$600. The median amount in the group of married men was about \$1,000; of individual men, \$500 to \$600; and of individual women, \$400 to \$500. The amount of insurance was not reported for 15 per cent of those having policies.

Except for real estate and life insurance, less than 30 per cent of the borrowers reported any savings or available funds and it was deduced from the records obtained that 72 per cent had none, although the report states that this figure may be somewhat too large as it was not practicable to make specific inquiries regarding every possible form of personal property.

Amount of Loan

THE majority of the 10,000 loans were for small sums, the amount most frequently borrowed being \$100 and the next in frequency \$50. Only 4 loans were for amounts in excess of \$300. The individual men

and the individual women in general borrowed smaller amounts than the married couples. One-half of the loans to individual men and to individual women were for \$70 or less and one-fourth were for less than \$50.

The borrower did not always receive the full amount of the loan in cash. Sometimes he had debts which the lender paid off directly, the amount owed being deducted from the full amount of the loan; in other cases the borrower already had a loan but wished to increase it. In the case of 45 per cent of the total number of loans, less than the full amount was received in cash.

Of the total number of loans, 4,167, or 42 per cent, were renewals at the same office, usually for increased amounts. Half of the individual women had borrowed at least three times before and half of each of the other groups—married couples and individual men—had borrowed at least twice before. Few of the borrowers had taken out loans more than ten times at the same office, although there were 34 who had borrowed more than twenty times and 3 had borrowed more than sixty times.

Relation of Income and Other Items to Size of Loan

THERE was a definite relation between the amount of income received by the borrowers and the size of the loan, the smaller the income the smaller being the size of the loan.

While there seemed to be some connection between the occupation of the borrower and the amount of the loan, "whether that connection be determined by the applicant or by the loan office," it was found to be difficult to trace this satisfactorily on account of the large number of different occupations and the comparatively small number of borrowers in each. However, "in general, it may be said that on the whole those who borrowed the larger amounts were engaged in the occupations of the relatively higher social and economic classes, while those who borrowed the smaller amounts were of the unskilled class."

The foreign-born white borrowers took out larger amounts on the whole than the native whites, and Negroes borrowed considerably smaller amounts than the native whites. While the foreign-born white borrowers had larger families than the native whites, and the Negroes had smaller families than either the foreign-born or native white borrowers, the data obtained showed that the "difference in size of loan according to nativity is not due to difference in number of children." In fact, "the ratio of large loans to small is diminished with increasing size of family but this may be because large loans are diminished and small loans are increased, or because large loans are diminished in greater degree and small loans in less degree, or because large loans are increased in less degree and smaller loans in greater degree. We are even further from being able to tell how far the actual recourse to loans of different sizes corresponds to the desires of the families in question." It is pointed out that since a larger number of smaller children means greater current expenses and consequently greater difficulty in paying back a loan, a borrower with a large family may have to borrow not what he needs but what he can get.

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The Negro in Richmond, Va.

IN JUNE, 1928, the Richmond Council of Social Agencies appointed a Negro welfare survey committee to study the situation and general condition of the Negro population of the city and to make such recommendations as it thought were indicated. Work on the survey began in October, 1928, and the field work and gathering of data were completed in July, 1929. The survey was undertaken in part because census data and the study of general conditions within the city had shown that the Negro population had failed to keep pace with the white population, that death rates, illiteracy, and illegitimacy rates, and proportion of arrests were higher among the Negroes than among white persons, and that "in every division of human welfare the position of the Negro was immensely disadvantageous, and accordingly perhaps dangerous and certainly expensive to the community as a whole." As both time and means were limited, effort was concentrated on gaining such facts as might afford a basis for an intelligent, city-wide social program to care for their actual existing needs. The study centered in the following questions:

Why does the Richmond Negro live on the average almost 15 years less than the white man of Richmond?

Why is the Richmond Negro arrested so much oftener than the white man of Richmond?

Eliminating from consideration all biological and anthropological factors, are the medical, educational, recreational, economic, and social opportunities of the Richmond Negro adequate to his needs?

While not prepared to give categorical answers to all of these questions, the committee feels that it can assign the basic cause.

From the evidence before it the committee agrees, first, that the inferior economic status of Richmond Negroes constitutes their most fundamental and pressing problem and is related directly and inexorably to every other social problem of the group; and, second, that methods must be worked out for adding to the vocational expertness of Negroes and for stabilizing employment opportunities for them.

Taking up one matter after another, the committee proceeds to show that in almost every line of development the Negroes are handicapped. For the most part only the low-paid and unskilled occupations are open to them; they are employed "overwhelmingly as laborers and in jobs requiring little or no education or supervisory ability." They live in the poorer streets, in houses often unfit for habitation, overcrowding is common, and rents are relatively high. Often the mothers are obliged to supplement the fathers' earnings by work away from home. Recreational facilities are few for either children or adults, and social services for their benefit are few and limited. Such conditions, the committee thinks, explain the high death rates and delinquency rates of the Negro.

If character building agencies build character, if preventive work prevents, and if recreational agencies are to the slightest degree substitutes for curative agencies, then the almost total lack of such social activities for Negroes in Richmond helps to explain the high Negro delinquency rate. It is not necessary to fall back on speculation and wonder if Negroes are sometimes arrested by white policemen simply because of race antagonism.

If parental control is a valuable factor in the training of children, does the absence of many Negro mothers from home during the day explain Negro juvenile delinquency in part? If poverty and poor homes relate themselves to the misconduct of whites, as every study ever made seems to indicate, how do Negroes

escape the depressing and demoralizing effects of their low economic status? If feeble-mindedness plays a part in crime, who can doubt that feeble-minded Negroes, for whom no local training and very little institutional care is provided, are at an enormous disadvantage in making adjustments in the complex city life of Richmond?

When the Negro has once become a delinquent his chances of rehabilitation are not good. The city does not maintain colored probation officers, and the two white probation officers are so overworked that they are unable to do satisfactory probation work. "They attempt to carry all the white juvenile cases, and the Negro girls' cases, but it is well established that a Negro is far better able to understand a Negro's problems and make successful contacts with Negroes than a white probation officer." A number of southern cities are cited as maintaining colored probation officers, and it is urged that Richmond should do likewise.

The recommendations are closely connected with the conditions discovered. Each subcommittee presents detailed programs for remedying the situation it had under review, while the committee as a whole stresses the more general lines of action. It asks that the Richmond Council of Social Agencies should appoint a permanent subcouncil on Negro welfare, to carry on the study of the problem and to press forward remedial measures; that social agencies should consider the advisability of giving representation to Negroes on their boards; and that in initiating movements for Negro welfare, first place should be given to those which meet the most urgent needs, due regard being had to the far-reaching as well as the immediate results, and to the cost to the community. Especially it is urged that vocational training should be provided for Negroes and an effort made to open up to them fields for which they are fitted, but in which they are at present not employed; that recreational opportunities should be provided; that more attention should be given to welfare work among Negro children; that a constructive health program for the colored population should be formulated and carried on; that housing conditions should be improved; that Negro probation officers should be provided in sufficient numbers to supervise those for whom probation or suspended sentence is deemed advisable; and that a social hygiene campaign should be carried on among Negroes.

Country and Town Workers in Porto Rico

THE majority of the daily laboring population of Porto Rico earn approximately 70 cents per day and are employed about four days out of seven, according to a recent survey made of "Porto Rico and its Problems" by Victor S. Clark and associates for the Brookings Institution of Washington, D. C. It is doubtful, this report states, if the average income of the rural workers of the island exceeds \$150 per annum. The earnings of wife and children plus the income resulting from the cultivation of a little land and the raising of poultry and livestock bring up the average rural family's income to something like \$250 to \$275 per annum.

The town laborer's earnings are not much above those of the rural laborer when the higher expense of living in the city is taken into consideration. The facts that the greater proportion of the food and

clothing of the Porto Ricans is imported and that the prices of such commodities are not adjusted to local wage rates make the low earnings even more inadequate, although, as the investigators point out, housing, fuel, and clothing requirements are, of course, very different in a tropical climate from those in the Temperate Zone.

The survey for the Brookings Institution, which was begun in the fall of 1928, was a quite comprehensive one, including among the subjects taken up the island's resources, public health, education, government organization, public expenditure and revenue, financial control, public debt, public personnel administration, public works, banking and credit facilities, external trade, commercial organizations, manufactures, agriculture, and economic betterment. The following is a summary of the chapter on country and town workers:

Wages and price statistics being very limited in Porto Rico it was necessary to supplement them by first-hand investigations, some of which were made by means of questionnaires. In some cases, however, personal observation was found to be the best method of research.

Only about 25 per cent of the islanders live in towns or villages, and the homes of the great majority of workers are conveniently near to their employment on large farms or plantations

Rural Living Conditions

THE great majority of the rural Porto Ricans are tenants at will and dependent upon their wages for a living. Nearly four-fifths of the dwellers in the country own no land, no home, few or no animals, and none but the most primitive agricultural implements, if any at all. "The masses depend for their right for a place to live, to raise a garden or to keep a cow, a pig, a goat, or a chicken upon the good will of the landowner upon whose property the little single-partitioned hut happens to be built."

According to the 1920 census there were 20,000 Porto Rican farms of less than 20 acres each, with a total of 52,000 "general farm" laborers, while the number of laborers in the three main export industries, the great majority of whom work on the commercial plantations, total about 145,000. While the agricultural laborer depends principally on wages, he adds something to his income by share cropping, especially on tobacco plantations, and the raising of a little livestock.

Road work and other public undertakings furnish some employment in western and central Porto Rico, and a considerable number of women are absorbed by the needle trades. Certain plantations, notably the coffee-growing undertakings, furnish a limited amount of free food, but the wages paid by the three principal industries and by a small but increasing number of fruit plantations and the housing available on these plantations constitute the chief basis of the rural standard of living.

Rural Housing

Most of the agricultural workers have no rent to pay, but they have no occupancy rights except from the landowners and are ever faced with the possibility of ejection. In general, rural houses for laborers are of three types—thatched huts, board cabins with galvanized iron roofs, and long frame tenements, the most common type

having a framework of poles or scantling nailed or tied with fiber. The walls of the most common type may be of boards, thatch, or royal palm bark. The roofs are thatch, bark, or galvanized iron; the floors are of boards and are usually a few feet from the ground, which allows the water from the heavy rains to pass under the dwellings down the hillside upon which such habitations are usually erected. These huts are 10 to 20 feet square and often have partial partitions of bark or board. They have no ceilings and uneven, unpainted walls. The cooking is done in a lean-to with a few stones for a stove. There are, however, many newer and better constructed and occasionally painted frame houses for rural laborers. These dwellings have galvanized roofing and inclosed kitchens, and are built and owned by the larger plantations. In addition to the above-described dwellings, there are long stablelike 1-story structures having from 20 to 30 noncommunicating rooms, each room with an outside door.

In the cane-cutting season the sugar centrals used to follow the practice of housing their unmarried nonresident laborers in buildings in which 50 or more men found little more than hammock space. There is a tendency now, however, to provide less crowded quarters and locker rooms with some regard for sanitation and cleanliness.

The house, furniture, and household utensils of the country laborer probably average not over \$75 in value and possibly a good deal less. Furthermore, a study of 4,263 houses of such laborers showed that regardless of size these dwellings sheltered an average of more than seven persons. Over 50 per cent of the single-room shacks house eight or more persons. The overcrowding is assumed to have been due in part to the great hurricane.

Employment, Wages, and Income

In the three principal agricultural industries the laborers lose a great deal of time apparently as a result of weather conditions. According to the plantation pay-roll data secured in the survey, adult workers have 4 to 5 days of employment per week in the weeks they are on the pay roll. Based on these records the typical weekly earnings would be \$2.75 to \$4.50, the average being under \$4 when the worker has a job, but many workers have jobs for only a part of the year. While there is some dovetailing in the fluctuations in Porto Rican industries there is nothing like 52 weeks of employment per annum for all the laborers who have jobs in the busy season.

Questionnaire returns from 6,398 adult male laborers in all sections of the island, both urban and rural, showed that slightly more than 60 per cent of these workers in 1929 received not over 80 cents per day in wages and more than 30 per cent not over 60 cents per day, while only 11 per cent earned more than \$1 per day. The average number of days worked per week was 4.21.

The average yearly cash income of a rural family in Porto Rico is estimated to be from \$250 to \$275, which includes the average wage income of 1½ adult male workers plus \$50, the wage income of women and children. This estimate slightly exceeds the income shown by the budgetary investigation made in connection with the survey under review. As noted above, however, the agricultural laborer generally has no rent to pay. In some places one meal a day

is still provided for workers, and in the coffee districts the laborers are allowed a certain number of bananas when such fruit is available. Opportunities for raising a considerable amount of food are also afforded the workers, especially those in the tobacco districts, and livestock is also a source of income to some families. However, only a minority of the rural families in the working class have gardens or raise food crops.

Through an inquiry made of the children in country schools in connection with the survey it was found that of 5,218 families, 38.5 per cent had dairy cattle, including young stock; 52.8 per cent had swine; 27.2 per cent, goats; 12.5 per cent, oxen; 21.9 per cent, horses; and 91 per cent, chickens. Attention is called to the fact that the poorest children do not come to school and even children of farmers somewhat better off leave school as a rule before reaching the intermediate grades. Moreover, possession of livestock does not always mean ownership. A family may hold a cow or a pig jointly, or it may be caring for the animal under certain conditions.

Family budgets.—A canvass of the weekly wages and expenditures of 267 rural working-class families selected at random showed that nearly all of their wages went for food. The average number of persons in the family was 8.1¹ while the average number of workers per family was 1.8. The average income reported by these families for the week scheduled was \$6.71 per family, \$3.49 per worker, and 85 cents per person. The week covered, however, was in the busy sugar season, at the peak of employment. Furthermore, an unusual amount of construction work was being done in the rural community and the Red Cross was clearing the coffee plantations and paying a wage somewhat above the typical Porto Rican rates—and yet the earnings per worker are less than would be paid for five days' employment at 75 cents per day. Approximately 94 per cent of the weekly earnings of these 267 families was spent for a certain kind of food, the greatest single item of expenditure being for polished rice, which with beans, coffee, sugar, and bread accounted for about half of the total cost for food. The heavy proportion of imported dry foods, particularly polished rice, in these budgets is declared to be disturbing from a hygienic standpoint.

Attention is again called in the report to the fact that the ordinary demands upon the family exchequer are at a minimum in the Tropics. Shoes, however, which are necessary for health, are beyond the income of a large percentage of the rural islanders. A few cents a week is spent on tobacco but practically nothing for amusements, health, clubs, social organizations, lodges, or churches.

In the face of appalling poverty and disease there are but few social or scientific agencies that are seriously concerned with the problems of the rural community. After a cataclysmic calamity like the recent hurricane, the Red Cross did a yeomanly piece of work in attempting to rebuild the houses of the poor. The Rockefeller Foundation is pursuing an energetic campaign against malaria. The recently established School of Tropical Medicine is studying tropical disease and problems of nutrition. Religious orders of the Catholic Church, like the Redemptionists [Redemptorists], and also Protestant missions are doing their bit. But taken together they are but a drop in the bucket. It is poverty, it is insufficient income for proper nourishment, it is the lack of a permanent home, it is the lack of a right to a piece of land, it is the absence of social organization in a scattered

¹ This is higher than the figure given in the census reports and elsewhere, due possibly to the smallness of the sample or to conditions brought about by the hurricane.

and isolated community that is at the root of the problem. Until some change has been wrought in the economic status of the mass of the people, most of the efforts will have a negligible or a temporary influence.

Town Workers

SAN JUAN and the adjoining municipalities of Rio Piedras and Bayamon, which have a combined population of less than 120,000, constitute the only actually urban area on the Island and even the residents of these cities live under suburban conditions. There are slums even in some of the moderately sized towns, but they present no grave problem. Families of skilled workers whose wages are from \$1 to \$3 per day may live in suburban frame cottages with three or four rooms or in midcity tenement apartments. Unskilled laborers often occupy hovels constructed by themselves in crowded and insanitary localities, the worst surroundings being as a rule in the wharf labor districts in port towns. Through an investigation made several years ago, many people were found to be paying exorbitant rents.

Family income.—In general, city workers receive higher wages than the rural laborers and the cost of the imported foods in the towns is possibly lower than in the country. While the cost of housing is greater in the city, urban workers have opportunities for more varied employment and the members of their families also have a better chance to get gainful work. The greatest evidence of economic hardship is found among rural workers whose living depends upon a single crop and frequently upon a single employer.

Wages.—In the fall of 1928 data on wage rates were compiled by agents of the Porto Rican Bureau of Labor from the pay rolls of representative industrial undertakings. The following table is based on these figures:

DAILY AND WEEKLY WAGE RATES OF MALE AND FEMALE WORKERS IN INDUSTRY, 1928

Wage rates	Males		Females	
	Number	Per cent	Number	Per cent
<i>Daily rates</i>				
Under 50 cents.....	15	0.2	112	4.4
50 to 59 cents.....	33	.6	253	10.0
60 to 69 cents.....	22	.4	91	3.6
70 to 79 cents.....	323	5.3	593	23.4
80 to 89 cents.....	360	5.9	210	8.3
90 to 99 cents.....	479	7.9	67	2.6
\$1 to \$1.24.....	1,610	26.4	1,007	39.7
\$1.25 to \$1.49.....	696	11.4	104	4.1
\$1.50 to \$1.99.....	1,478	24.3	60	2.4
\$2 and over.....	1,073	17.6	37	1.5
Total.....	6,089	100.0	2,534	100.0
<i>Weekly rates</i>				
Under \$2.....	71	2.3	699	7.2
\$2 to \$2.99.....	98	3.1	1,509	15.5
\$3 to \$3.99.....	137	4.4	2,484	25.6
\$4 to \$4.99.....	170	5.5	2,206	22.7
\$5 to \$7.49.....	629	20.1	2,070	21.3
\$7.50 to \$9.99.....	456	14.6	564	5.8
\$10 to \$14.99.....	713	22.8	134	1.4
\$15 to \$19.99.....	392	12.5	29	.3
\$20 and over.....	458	14.7	20	.2
Total.....	3,124	100.0	9,715	100.0

The labor movement.—In March, 1905, there were 123 unions in Porto Rico, all affiliated with one local federation. According to the latest information available for the report of the Brookings Institution, the federation had 236 organizations and approximately 35,000 members.

The unions, however, the report states, "have not been able to surmount the handicaps of an overcrowded labor market and the poverty of their members so as to win signal victories by direct action." The principal achievements of the labor movement have been the outcome of political action.

These accomplishments, which many islanders not affiliated with labor unions have helped to realize, are the formation of the labor or so-called Socialist Party, powerful enough to make its influence felt in both legislation and public administration, and the enactment of a considerable body of laws for the protection of workers and the promotion of their interests.

Outstanding among such laws are the act of 1917 providing for the Department of Agriculture and Labor, and legislation for the regulation of the employment of women and children, prescribing that wages be paid in cash and that wages improperly withheld by employers be collected, and creating a commission for the mediation of industrial disputes and a commission for the administration of the workmen's compensation law.

CARE OF THE AGED

Massachusetts Old-Age Assistance Law

BY THE approval of an act (Acts of 1930, ch. 402) on May 28, 1930, providing for adequate assistance to aged citizens, Massachusetts was the twelfth State ¹ (not including Alaska) to adopt such legislation. In the main the act is merely an extension of the poor relief law heretofore enacted in the State.

Analysis of Act

THE Massachusetts act is analyzed below, showing the principal features of the law in a form which may be used in comparing other such laws already in operation.

Date of approval.—May 28, 1930; in effect July 1, 1931.

Establishment of relief.—A bureau of old-age assistance is to be established by each board of public welfare:

To whom applicable.—Adequate assistance shall be given under the act to:

(1) Deserving citizens 70 years of age or over in need of relief and support.

(2) Residents of the State for at least 20 years prior to reaching 70.

Nature of relief.—Adequate assistance shall, wherever it is considered practicable, be given in the home of the aged person, or in lodgings or in a boarding home. The law provides that any assistance given shall be sufficient to support such person in a suitable and dignified manner. No person under the act is to be considered a pauper by reason of receiving assistance.

Application.—Applicant must apply to the Bureau of Old-Age Assistance. In determining the need of financial assistance, the bureau must consider (1) the resources of the aged person and (2) ability of children or others to support the needy one.

Appropriation.—The act as passed does not provide for an appropriation, but the commissioner of corporations and taxation is directed to devise ways and means for raising the required revenue and report his findings, recommendations, and drafts of necessary legislation to the clerk of the Massachusetts House of Representatives by December 3, 1930. The act provides that in the raising of the necessary revenue to carry out the provisions of the act, so far as possible no additional burden be placed on real estate, but that consideration be made to the taxing of amusements, proprietary articles, and luxuries.

Reimbursement by State.—The town rendering assistance to all aged persons is reimbursed by the State for one-third of the amount, and for the total amount in case of a person without a legal settlement in the State. In the case of an aged person aided having a legal settlement in another town, two-thirds of the amount of assistance given may be recovered against the town which is liable.

¹ California, Colorado, Kentucky, Maryland, Massachusetts, Minnesota, Montana, Nevada, New York, Utah, Wisconsin, and Wyoming.

Administration.—The department of public welfare is empowered to supervise the work of the several town boards of public welfare. In order to carry out the purposes of the act, the department of public welfare may (1) make rules relative to notice and reimbursement, and administration, (2) visit any person aided, (3) have access to any records and data kept by the boards of public welfare, (4) require the production of books and papers, and (5) require the testimony of witnesses under oath.

Old-Age and Invalidity Pensions in Australia

THE Official Year Book of Australia (No. 22, 1929) covering the year 1927-28 contains some data concerning old-age pensions which are of interest as showing how general such pensions tend to become and how early people seek to enroll themselves as pensioners. The Commonwealth invalid and old age pension act of 1908, which became operative July 1, 1909, provided for pensions both for old age and for those who were completely and permanently incapacitated, and fixed £26 (\$126.53) per annum as the maximum amount payable. This amount has been altered several times as the cost of living increased, and in 1925 an amending act raised the maximum to £52 (\$253.06) a year and provided that the pensioner's total income, including the pension, should not exceed £84 10s. (\$411.22) per annum.

On June 30, 1928, the number of old-age pensioners was 139,367, divided as to geographical locality and sex, as follows:

CLASSIFICATION OF OLD-AGE PENSIONERS, BY SEX AND BY STATE

State	Males	Females	Total
New South Wales.....	22, 899	30, 376	53, 275
Victoria.....	15, 577	25, 065	40, 642
Queensland.....	8, 020	10, 165	18, 185
South Australia.....	4, 476	7, 777	12, 253
Western Australia.....	3, 390	4, 323	7, 713
Tasmania.....	3, 019	4, 280	7, 299
Total.....	57, 381	81, 986	139, 367

It will be seen that about two-fifths (41 per cent) are males, and 59 per cent females, and that in every State there is a marked excess of females. Those to whom old-age pensions were granted in the year ending June 30, 1928, were divided as to sex and age as follows:

SEX AND AGE GROUPING OF PENSIONERS ENROLLED IN 1927-28

Age group	Males		Females		Total	
	Number	Per cent	Number	Per cent	Number	Per cent
60 to 64 years.....	1, 349	14. 7	5, 809	62. 6	7, 158	38. 8
65 to 69 years.....	5, 358	58. 6	2, 073	22. 3	7, 431	40. 3
70 to 74 years.....	1, 763	19. 3	871	9. 4	2, 634	14. 3
75 to 79 years.....	510	5. 6	333	3. 6	843	4. 6
80 years and over.....	171	1. 9	195	2. 1	366	2. 0
Total.....	9, 151	100. 0	9, 281	100. 0	18, 432	100. 0

In respect to number the sexes show little difference, but the age distribution varies widely. Women are eligible for the pension at 60, but men not until 65, unless they are permanently incapacitated, in which case they also become eligible at 60. It is not surprising, therefore, that the proportion in the age group 60 to 64 is so much greater among women than among men. The proportion coming in at 70 and over is fairly large in both groups, 15.1 per cent among the women, and 26.8 among the men. Seventeen (14 women and 3 men) were 90 and over when admitted to the pension.

Old-age pensions have been in operation in Australia long enough to have passed beyond the irregularities incident to the adoption of a pension system; the number applying in a given year may be greater or less, according to whether times are prosperous or the reverse, but the rush which follows the introduction of a pension plan is long over, so the relation of the pensioners to the population as a whole is of significance. In 1921, the latest census year, the population of the six States to which the pension system applies was 5,429,295, and as old-age pensioners at the close of 1927-28 numbered 139,367, they formed 2.6 per cent of this total. In 1921 the population of the six States aged 60 and over was 407,539, and the number in receipt of pensions on June 30, 1928, was a trifle over one-third (34.2 per cent) of this age group.

The invalidity pension is payable to persons aged 16 and over who have resided continuously for at least five years in Australia and have become totally and permanently incapacitated there. Blindness is included under the heading of total and permanent incapacity, but those receiving pensions as blind persons are not separately listed. During the year ending June 30, 1928, 7,976 invalidity pensions were granted, the age and sex of the pensioners being as follows:

AGE AND SEX OF RECIPIENTS OF INVALIDITY PENSIONS, 1927-28

Age group	Males	Females	Total
16 to 19 years.....	368	485	853
20 to 29 years.....	477	539	1,016
30 to 39 years.....	503	408	911
40 to 49 years.....	862	712	1,574
50 to 59 years.....	1,436	1,572	3,008
60 to 69 years.....	245	210	455
70 to 79 years.....	81	75	156
80 years and over.....	1	2	3
Total.....	3,973	4,003	7,976

Here, again, the new pensioners are almost equally divided as to sex, but there is less difference in their age distribution than in the case of the old-age pensioners; 55.6 per cent of the men against 53.6 per cent of the women were under 50; 36.1 per cent of the men and 39.3 per cent of the women were between 50 and 60; and 8.2 per cent of the men, against 7.2 per cent of the women were 60 and over. Women outnumber men on the pension roll, the total number receiving invalidity pensions at the end of the year being 55,517, of which number 24,623, or 44 per cent, were males and 30,894, or 56 per cent, were females.

The total number of old-age and invalidity pensioners on the rolls at the end of each fiscal year and the total amounts paid to them or to asylums on their behalf, are given for five years, as follows:

OLD-AGE AND INVALIDITY PENSIONERS, AND AMOUNTS PAID IN PENSIONS, 1924 TO 1928

Year ending June 30—	Number of pensioners			Amount paid in pensions	
	Old age	Invalidity	Total	English currency	U. S. currency
1924	113,054	42,617	155,671	£6,523,881	\$31,771,300
1925	117,516	44,840	162,356	6,992,905	34,055,447
1926	126,918	48,803	175,721	8,252,387	40,189,125
1927	133,234	52,399	185,633	9,144,589	44,534,148
1928	139,367	55,517	194,884	9,790,346	47,678,985

The above amounts do not include the cost of administration, which rose from £92,366 (\$449,822) in 1924 to £118,641 (\$577,782) in 1928. This absolute rise, however, was accompanied by a relative fall, the cost of administration per £100 (\$486.65) paid in benefits being £1 8s. 4d. (\$6.89) in 1924, and £1 4s. 3d. (\$5.90) in 1928. The average fortnightly pension on the last of each financial year was 33s. 9d. (\$8.21) in 1924 and 38s. 5d. (\$9.35) in 1928.

Report of Nova Scotia Committee on Old-Age Pensions

IN AUGUST, 1928, the Government of Nova Scotia appointed a committee to investigate the question of establishing an old-age pension system in that Province. The committee presented an interim report in February, 1929, and has recently made public its final report, which is summarized in the Canadian Labor Gazette for May, 1930.

Under the Canadian Dominion act, the General Government shares the cost of a pension system with any Province which decides to adopt one. Pensions are payable to British subjects aged 70 and over who meet certain conditions as to residence, character, and means. The maximum pension is \$240 a year and this is diminished by any private income the pensioner may possess in excess of \$125 a year. The Province administers the system and the Dominion Government repays to it quarterly one-half the amount it has paid out in pensions during the preceding months.

In the interim report the committee presented data which led it to the conclusion that there were in Nova Scotia approximately 25,300 persons who, subject to the means and residence qualification, would be eligible for pensions. In the final report it calculates that of these, 18,427, or 73 per cent, could claim pensions of various amounts. The committee made a careful study of the incomes of a group of 4,713 persons, and applying the figures thus obtained to the 25,300 septuagenarians disclosed by the preliminary investigation, made the table following.

INCOME DISTRIBUTION OF BRITISH POPULATION AGED 70 AND OVER IN NOVA SCOTIA

Annual income	Number in income group	Per cent of total in income group
\$400 and over.....	6,350	25.1
\$300 to \$399.....	1,493	5.9
\$200 to \$299.....	1,999	7.9
\$100 to \$199.....	3,188	12.6
Less than \$100.....	12,270	10.8
None.....		37.7
Total.....	25,300	100.0

The commission estimates that 970, or 65 per cent, of those having incomes of \$300 to \$399 have incomes of from \$300 to \$364, and would therefore be eligible for small pensions. The total cost of the system they estimate as follows:

12,270 pensioners with no income, or less than \$100, at \$240 each.....	\$2,944,800
3,188 pensioners with average income of \$150, at \$215 each.....	685,420
1,999 with average income of \$250, at \$115 each.....	229,885
970 pensioners with average income of \$332, at \$33 each.....	32,010
Average pension, \$211.20.....	3,892,115

The total amount payable in pensions according to this estimate would be roughly \$3,800,000, of which the Federal Government would pay half (\$1,900,000) and the provincial government would be responsible for the same, plus the cost of administration.

In considering how this amount could be raised, the commission points out that Nova Scotia, like all the eastern Provinces, is at a disadvantage; there has been a westward migration, made up for the most part of the young, so that the proportion of old persons is larger in all the eastern than in the western part of the country.

It is now said that every Province west of Quebec has old-age pensions. It could be said with greater significance that no Province east of Ontario has old-age pensions. As has been previously stated, it is not due to lack of appreciation of the problems of aged dependency but has its essence in economic fact and unalterable social conditions. The eastern Provinces are hesitating to adopt the scheme because, on account of their less favorable age composition, it would constitute a tremendous financial burden.

As most of the principal sources of provincial tax revenue are already employed in Nova Scotia, the commission states that there is some difficulty in proposing possible plans. A direct tax on real and personal property, or upon incomes, is suggested; also a tax might be placed on rental values, and three minor sources of income mentioned are a tax on parlor chair cars and staterooms sold within the Province, a tax on railway tickets, and a stamp tax on legal documents.

The commissioner concludes with the following brief summary of the pension situation as it exists in the Province:

The present tendency in public opinion and conscience, as well as in legislation activity is toward the assumption by the State of a much larger share of responsibility in the care of its aged poor and needy citizens than in the past. Unfortunately, in Nova Scotia, the proportion of the population 70 years of age or over is very large and the number in the productive age groups relatively small. For this reason all of the measures of taxation that have been proposed to meet the cost of old-age pension on a noncontributory basis would constitute a very serious burden.

CHILD LABOR

Child Workers in Maryland Canneries, 1929

IN HIS annual report for 1929 the Maryland commissioner of labor and statistics devotes some space to an account of a campaign undertaken by his department to prevent the illegal employment of children in canneries and to secure the proper legal safeguards for those who might lawfully be employed. An investigation made during the previous year had shown that a considerable number of children were employed in canneries, that the system of bringing migratory workers to the camps involved the presence of many other children too young for employment, and that both groups suffered from certain conditions of the camp and work. The report thus sums up the result of the 1928 investigation, so far as children are concerned:

The following facts discovered about the children under the age of 16 years found working in these canneries have caused this office very serious concern:

1. The educational handicap, and its very obvious results in the form of retardation in school, suffered by many of these child workers and probably by their younger brothers and sisters who, although too young to actually work, remain in the labor camps with their families until the close of the season.
2. The employment of an appreciable number of children under 14 years of age.
3. Definite proof that a number of employment certificates had been issued upon incorrect information to children under 14.
4. The failure of employers to secure in a large number of cases employment certificates for children under 16 years of age.

To meet this situation, a letter was sent early in May to each canner whose name appeared on the office records, inclosing a copy of the child labor law, urging the recipient to make sure that its terms were observed in his establishment, and offering the department's cordial cooperation in the effort. The employers were urged to send the names of their row bosses, if they secured their help through such an agency, to the department, and also to write themselves to the bosses, impressing upon them the necessity of seeing that each child employed presented proper proofs of his age and was supplied with an employment certificate if under 16. If the employers did the hiring themselves at the camps, they were urged to observe these same points, the address was given of the nearest doctor empowered to issue certificates, and details were added as to the kind of proof of age required, methods of securing certificates, and the like. To make it easier to secure adequate evidence of the children's age quickly—for the cannery work is highly seasonal, and there is little time for looking up such matters when workers apply for employment at the camp—it was arranged in two or three counties to have a school record issued to each county child who expected to work during the summer. A follow-up letter was sent to the employers early in June. Meanwhile, communication was established with the row bosses whose names and addresses had been sent to the

office, and these, too, were urged and assisted to make sure that no children were employed below the legal age, and that those who had reached legal age had the required papers.

Number of Children Found in Canneries

IN ALL, 405 canneries were visited during the season, of which 69 were canning and packing sea food, and 336 were canning fruit and vegetables. In all, 1,276 children under 16 years old were found at work in these establishments. Of the sea-food canneries only 21 employed children under 16. In these a total of 67 children were employed; 14 were under 14 years of age and hence could not legally be employed; 23, between 14 and 16 years old, had no employment certificates; and 30, between 14 and 16, had the required certificates on file. Thus there were 37 cases of illegal employment, occurring in 14 plants.

Of the fruit and vegetable canneries, only 298 were in operation when visited.

In these 298 plants, in 224 of which children under 16 years of age were found working, there were employed 22,328 persons: 8,620 men, 12,499 women, and 1,209 children under 16 years of age. In 83 plants, 298 children under 16 were working without employment certificates. Of these children, 107 were under 14 and 191 were between the ages of 14 and 16 years. In 179 canneries 911 children who had secured employment certificates were found working.

In all, therefore, 335 children were illegally employed, and in the case of 107 there was a double illegality, since they were under age and without employment certificates. Nevertheless, the department feels that some progress was made during the year. The number of certificates issued in the counties was larger by 440 than in 1928, representing a gain of 27.1 per cent over the 1928 figures. The work with the row bosses was found to be very satisfactory, the number of violations found in canneries securing their help through these bosses being very small. More children were found employed than in 1928, but there is no reason to suppose that the employment of children is increasing, and it is suggested that the increased alertness of the inspectors and the efforts of the office have resulted in bringing to light the real situation.

Most of the work done in connection with the county canneries during 1929 has been purely experimental and while we feel that there has been some progress made, without doubt it has been largely along those particular lines which have served only to establish more clearly the magnitude of the problem which faces this office.

HEALTH AND INDUSTRIAL HYGIENE

Coordination of Federal Health Activities

ALTHOUGH the bill known as the Parker bill, signed by President Hoover April 9, 1930, aims at the coordination of the public-health activities of the Government, it actually does more to reorganize and extend the scope of the activities of the United States Public Health Service than it accomplishes in bringing together the work of the various governmental agencies concerned with health matters. The most important features of the bill from the latter standpoint are those providing for the detail of personnel of the Public Health Service to other Government departments to cooperate in work having to do with the public health when this is requested by the head of an executive department or independent establishment; the detail of the personnel to educational and research institutions; and the right to offer to health officials and scientists engaged in special study the facilities of the Hygienic Laboratory in Washington, D. C. The other provisions of the bill are concerned with changes in status and increase in the number of the personnel in the Public Health Service, promotions, the establishment of such new divisions as may be considered necessary for the solution of public-health problems; and the granting of a commissioned status to others than medical officers.

Energy Requirements of Intense Mental Effort

An article ¹ in the June issue of the Proceedings of the National Academy of Sciences gives the results of experiments showing the effects of intense mental efforts upon the general metabolism. It is noteworthy that even in the more abstract sciences in applying quantitative analysis to various types of problems statistical methods are being used, so that more and more scientists in working out problems or theories are using the statistical approach to the solution of the problems studied. The present study is a case in point.

It is the general experience that intense, sustained mental effort results in a feeling of profound mental and physical fatigue. Whether or not the effect of the mental effort upon the general vital processes is in any degree commensurate with this subjective feeling of fatigue has been the subject of various investigations. At the present time, the writers state, although no uniformity in results has been obtained, it is the general opinion that metabolism is affected by mental work, but that the effect varies with the intensity and the type of mental effort. In attempting any measurement of these effects, the factors to be considered which show the most definite relation to mental effort are the pulse rate, the respiration rate, and, in fact, the entire mechan-

¹ Proceedings of the National Academy of Sciences, Washington, June, 1930, pp. 438-443: "The energy requirements of intense mental effort," by Francis G. Benedict and Cornelia G. Benedict.

ics of respiration including the carbon-dioxide production and the oxygen consumption, the last two factors affording a direct means for computing the total energy transformation or the metabolism.

In carrying out such experiments the method of choice is to measure the metabolism when the subject is in digestive repose—that is, 12 hours after the last meal and when perfectly quiet, muscularly relaxed and mentally inactive—following the state of rest by tests in which the element of attention or alertness is introduced by means of determining the reactions to an auditory or an ocular stimulus, and finally by measuring the results of a period of intense mental activity. Numerous experiments using different types of mental effort ranging from the simple reading of a daily paper to complicated mental arithmetic problems have shown that the latter call for the most sustained and intense effort. In the present series of tests, therefore, in which five men and one woman (subject VI) participated, the mental multiplication of two figures by two other figures was used. The subjects of the test were first trained in the use of the breathing apparatus for measuring the respiratory exchange, so that there was no mechanical interference with the mental operation. The heart rate was recorded by means of a cardiograph in which each heart beat was magnified by radio amplification and the rate and depth of respiration were recorded by writing on a kymograph drum attached to the spirometer into which the subject breathed. The oxygen consumed was measured directly by the meter and the carbon-dioxide production was determined by weighing the vessel for absorbing carbon dioxide at the beginning and end of each test period. In another series of experiments a different method of measurement was used or a combination of the two methods, the results of which in all cases were in perfect agreement with the first series.

In a typical experiment the subject, not having eaten since 6 o'clock the evening before, is tested for the respiratory rate, oxygen consumption, and carbon-dioxide production while lying perfectly quiet and with the mind as tranquil as possible. This rest period is followed by a period in which the subject is given an attention test, in which his response to either flashing lamps or the ringing of a simple buzzer is recorded. These periods, which showed in all cases that the subject was duly attentive, were succeeded by several periods of mental activity. The preliminary period consisted usually of about 10 minutes of mental effort followed by three or four 15-minute periods of sustained mental activity. The subject was then allowed to rest or the buzzer stimulus alone was used. Occasionally this procedure was repeated after periods of repose.

The most striking result shown in the tests was in the mechanics of respiration, the depth and rate of respiration, which were very regular during the periods of repose, becoming greatly altered and noticeably irregular during the period of mental activity. The respiration rate per minute showed only a slight change, however, increasing from an average of 14 for all the subjects during rest to 15 during the work period. The respiratory volume, on the other hand, increased from 5.4 liters per minute while at rest to 6.2 liters while at work and the heart rate increased on the average five beats per minute. The greatest increase—12 beats per minute—was registered for the one

woman subjected to the test. The periods of rest following the mental work showed in all instances a tendency for a return to the original respiration rate and depth of respiration, and there was no indication of a cumulative effect, as the second mental-work series duplicated in most cases the results of the first.

The measurement of the carbon-dioxide production showed an increase per minute in the amount exhaled during work over that exhaled during rest, but this is not regarded as necessarily a true increase in metabolism, as with a marked change in the mechanics of respiration a draft upon the relatively large amounts of previously formed carbon dioxide stored in the body could be expected. Moreover, there was no cumulative effect in this increase, as at the end of an hour of four 15-minute periods of severe mental effort the amount of carbon dioxide exhaled was not greater than during the first 15 minutes.

The oxygen consumption holds the greatest interest, however, as it represents more nearly the true increase due to oxidative activities or metabolic processes as a result of any superimposed factor. In the following table it is shown that in the mental work periods there was a slight increase in the oxygen consumption, which, while usually not as great as the carbon-dioxide production, was nevertheless a positive increase. The oxygen consumption decreased in the rest periods and increased again during the second series of mental-work periods. This indicates, it is stated, a true increase in the metabolic processes.

EFFECT OF MENTAL EFFORT ON OXYGEN CONSUMPTION

Subject	Average cubic centimeters per minute	
	Rest	Work
I.....	208	210
II.....	212	219
III.....	232	241
IV.....	242	247
V.....	174	187
VI.....	181	191
Average.....	208	216

In summing up the study the authors state:

Our conclusion in general, therefore, is that with intense, sustained mental effort, such as in multiplication, there is a noticeable increase in the heart rate, a rather considerable change in the character of the respiratory movements, an increase in the volume of air passing through the lungs, a small increase in the carbon-dioxide production, a smaller increase in the oxygen consumption, and consequently a slight increase in the apparent respiratory quotient. The increase in oxygen consumption, which may be taken as the best index of energy transformations, is such as to suggest that the increase in heat production as a result of intense mental effort of this type can hardly be of the order of more than 3 or 4 per cent. In view of the sense of extreme, almost overpowering fatigue in both mind and body following sustained mental effort, it is surprising that mental effort has such an insignificant effect upon the general metabolism or level of vital activity.

INDUSTRIAL ACCIDENTS

Fatal Accidents in Colorado Coal Mines, 1920 to 1929

THE figures given below on fatal accidents in the coal mines of Colorado from 1920 to 1929, inclusive, are from a more extended tabulation published in the Seventeenth Annual Report of the Inspector of Coal Mines of that State:

TOTAL ACCIDENTS IN COLORADO COAL MINES, 1920 TO 1929

Year	Total number of mines in State	Tons of coal produced	Number of men employed	Number of fatal accidents	Number killed per 1,000 employed	Tons of coal produced per fatal accident
1920.....	231	12,514,693	13,665	70	5.12	178,781
1921.....	249	9,141,947	14,164	52	3.67	175,807
1922.....	275	10,003,610	13,436	74	5.51	135,184
1923.....	276	10,336,735	13,277	66	4.97	156,617
1924.....	271	10,501,088	12,703	44	3.48	238,661
1925.....	283	10,440,387	12,228	57	4.66	183,165
1926.....	261	10,616,760	11,768	52	4.42	204,168
1927.....	266	9,781,580	11,453	54	4.71	181,140
1928.....	266	9,921,585	11,474	35	3.05	283,474
1929.....	264	9,934,064	11,196	53	4.73	187,435

Fatal Accidents in Missouri Mines, 1929

IN 1929 there were 10 fatal accidents recorded for the mines of Missouri—the lowest number since the State Bureau of Mines was established. As the Missouri mines were more active during that year than during several previous years, this reduction is encouraging, according to the forty-second annual report of the above-mentioned bureau, from which the following accident statistics are taken:

FATAL ACCIDENTS IN MISSOURI, 1928 AND 1929

Year	Number of men employed	Tons of mineral produced	Number of fatal accidents	Number of men employed per fatal accident	Tons of mineral produced per fatal accident
Lead and zinc mines:					
1928.....	4,334	278,287	8	541	34,786
1929.....	4,510	307,560	2	2,255	153,780
Coal mines:					
1928.....	6,333	3,510,191	11	575	319,106
1929.....	6,616	4,022,368	7	945	574,624
Clay mines:					
1928.....	726	934,706	1	726	934,706
1929.....	899	1,110,376	1	899	1,110,376
Shale mines:					
1928.....	330	493,769	1	330	493,769
1929.....	290	463,891	-----	-----	-----

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE

Recent Workmen's Compensation Reports

Arizona

THE fourth annual report of the Industrial Commission of Arizona covers the operation of the competitive State compensation fund for the calendar year 1929.

The fund, which is declared the fourth largest of the competitive State funds in the United States although established only four years, wrote insurance the premiums on which totaled \$1,794,108.31 during 1929. Employers insuring in the fund are classified as general, civic, and "self-rating." The amount of premiums collected from employers in the general classification aggregated \$819,533.29, and exceeded the combined total paid in the State to all other insurance carriers. The initial cost of insurance in the State fund is 10 per cent less than rates charged by private carriers, and according to the report, which is dated June 12, 1930, a substantial dividend will be declared within the next few weeks to employers in the general and civic classifications, which together will result in a net saving of over \$250,000 through insuring in the fund.

The premium in the civic classification, which covers all State, county, city, and school employees, was \$217,228.50. Self-rating employers, who pay the full cost of accidents to their employees and have a guaranty fund on deposit with the commission, paid \$757,346.52.

A total of more than 17,000 new cases were handled during the year by the industrial commission, which has jurisdiction of all cases of industrial injury, whether the liability is carried by the State fund or by private insurance carriers. The latter do not, however, contribute to the operating expense of the commission, which is financed from a percentage of the earned premiums of the State fund plus a 2 per cent tax on self-rating employers. It is pointed out that the overhead during the year was only 7 per cent, asserted to be the lowest of any competitive State fund in the country.

Philippine Islands

THE annual report of the Governor General of the Philippine Islands for 1928 contains the first statistics published on the experience under the workmen's compensation act. Up to June 11, 1928, when the act became effective, some indemnities were paid for industrial accidents under the employers' liability act, partly through court proceedings but mainly as grants, donations, or gratuities through the intervention of the bureau of labor. While tabulations of all accidents reported to the bureau and all benefits received were issued annually, the number of accidents published was only a portion of the number which actually occurred, because reporting of injuries was not compulsory. During the six and one-half months

under the experience of the act, 920 accidents were reported, or over 70 per cent more than those reported for the entire previous year.

A summary of the cases under the workmen's compensation act during 1928 is presented in the following table:

NUMBER OF ACCIDENTS AND BENEFITS PAID UNDER WORKMEN'S COMPENSATION ACT, JUNE 11 TO DECEMBER 31, 1928, BY DEGREE OF DISABILITY

[Conversion on basis of 1 peso at par = 50 cents]

Item	Degree of disability			Total
	Fatal	Permanent partial	Temporary total	
Benefits paid:				
Compensation	\$3, 796. 75	\$2, 149. 59	\$5, 161. 92	\$11, 108. 26
Medical and hospital aid	¹ 1, 564. 37	710. 36	7, 762. 48	10, 037. 21
Total	5, 361. 12	2, 859. 95	12, 924. 40	21, 145. 47
Number of accidents reported	68	18	834	920

¹ Includes funeral expenses of \$1,063.55.

The industries in which these accidents occurred and the number of accidents were as follows:

Land and water transportation, wharves, etc	363
Oils, fats, etc	78
Metal works, etc	34
Mining, quarrying, and other stone works	8
Food, drinks, tobacco, etc., manufacturing and distribution ..	114
Textiles, clothing, hats, shoes, and leather goods	5
Building and engineering construction	9
Books, printing, publishing, etc	6
Wood, furniture, sawmill, and lumber yards	146
Miscellaneous and general labor	90
Government activities	67
Total	920

Many of the larger plantations and other establishments maintain individual medical and hospital service and do not report costs of medical aid to the bureau. Consequently the figures published for medical aid under the act do not include the full cost of same.

Over 39 per cent of the injuries occurred in land and water transportation, wharves, etc., nearly 16 per cent in wood products, and more than 12 per cent in manufacturing and distributing food.

Virginia

CHANGES during 1928 in the workmen's compensation laws necessitated reorganization of the statistical work of the Industrial Commission of Virginia. Among these changes were compulsory reporting by employers of all injuries instead of only those causing more than seven days' disability, of all medical and hospital expense incurred, and of required employment data, as well as individual policy reports from casualty insurance companies on each policy, with pay-roll exposure.

Consequently, the former method of compiling the biennial reports of the commission on a fiscal-year basis, ending September 30, was abandoned for the calendar-year basis, and the 1928-29 report, dated November 30, 1929, covers the experience under the workmen's compensation act for the calendar year 1928.

Attention is called to the amendments to the act during the 10 years since its original passage, such as increasing the maximum weekly compensation benefits from \$10 to \$12, the maximum compensation for permanent total disability from \$4,000 to \$4,500, the maximum compensation in fatal cases from \$3,000 to \$3,600, and the minimum weekly compensation from \$5 to \$6; reducing the waiting period from 14 to 10 days; providing compensation from the date of injury when the disability exceeds six weeks; extending the period for medical and hospital treatment from 30 to 60 days; providing the same compensation for the loss of use of a member as for the loss of a member; and making special provision for disfigurement of the head or face.¹

The four tables in the report consist of a summary of injuries and awards for the year; the experience of compensable cases, by insurance carriers; wages of the injured in compensable cases; and accident frequency for specified industries during the last half of 1928. The summary of injuries is produced in the following table:

INDUSTRIAL INJURIES OCCURRING DURING 1928 IN VIRGINIA, WITH AWARDS IN COMPENSABLE CASES, BY EXTENT OF DISABILITY

Extent of disability	Number of cases	Duration of disability (days)	Compensation incurred
Fatal.....	188		\$327, 450
Permanent partial.....	886		346, 738
Temporary total—compensable.....	6, 073	226, 033	235, 299
Funeral.....			16, 600
Indeterminate.....	141		¹ 160, 000
Total, compensable cases.....	7, 288		1, 086, 096
Noncompensable cases.....	18, 490		
Total, all cases.....	25, 778		

¹ Estimated.

As only the injuries resulting in disability of more than seven days were reported up to July 1, 1928, the number of noncompensable cases covers only such injuries for the first half of the year, together with all cases during the second half.

Requirement for reporting detailed medical and hospital expense in all cases did not become effective until July 1, 1928, so this cost was not included in the tables. Based on the figures for the last half of 1928, the medical expense for the full year was approximately \$650,000. The average medical expense in all cases where compensation was awarded was \$56, and in cases of insufficient duration to entitle the injured to compensation it was \$9.30. The average medical cost for the combined compensable and noncompensable cases was \$21.

¹ Since the period covered by the report further changes have been made: Increases in the maximum weekly compensation to \$14, in the maximum compensation for permanent total disability to \$5,600, in the maximum compensation for death to \$5,000, in the maximum allowance for burial expenses from \$100 to \$150, and in the rate of compensation from 50 to 55 per cent of the weekly wages. The waiting period has been reduced to seven days, and the maximum period for medical aid extended to 180 days.

Nova Scotia

THE annual report of the Workmen's Compensation Board of Nova Scotia for 1929 presents the experience under the act for that year, and an analysis of the accidents for the previous year by industry, nature, cause, month of occurrence, sex, nativity, and locality, and other detailed statistical tables.

A summary of the experience for 1929 of the exclusive provincial accident fund, as compared with the experience for 1928, given in the report for that year, is shown in Table 1.

TABLE 1.—EXPERIENCE UNDER THE WORKMEN'S COMPENSATION ACT OF NOVA SCOTIA, 1928 AND 1929

Item	1928	1929
Industrial accidents reported.....	8,349	10,086
Awards made:		
Fatal cases.....	42	62
Nonfatal cases.....	5,056	6,224
Medical aid cases.....	1,499	2,076
Total.....	6,597	8,362
Claims pending December 31.....	1,069	1,144
Cost of accidents occurring in 1929, actual and estimated:		
Compensation paid.....	\$267,000.35	\$293,115.34
Medical aid paid.....	74,221.57	90,002.73
Reserve for pension awards.....	210,579.37	250,155.13
Compensation outstanding, estimated.....	707,454.56	855,174.27
Medical aid outstanding, estimated.....	27,808.12	33,263.34
Total.....	1,287,063.97	1,521,710.81
Grant to safety associations.....	9,043.34	8,952.65
Administrative expense.....	94,307.44	93,561.60

The figures for medical aid paid do not cover the total amount, as the greater portion of medical aid in two industrial groups—mining, and iron and steel—is furnished under medical aid schemes, and consequently not by the board.

Table 2 shows the number of accidents compensated in 1929, by industry and extent of disability.

TABLE 2.—NUMBER OF INDUSTRIAL ACCIDENTS COMPENSATED IN NOVA SCOTIA IN 1929, BY INDUSTRY AND DEGREE OF DISABILITY

Industry group	Cases closed					Cases partly closed	Total
	Fatal	Perman-ent disability	Temporary disability		Total		
			Compensation	Medical aid			
Mining.....	29	78	2,687	269	3,063	334	3,397
Lumbering and woodworking.....	3	44	1,221	220	1,488	281	1,769
Iron and steel.....	6	28	328	495	857	70	927
Manufacturing and operating not otherwise specified.....	1	9	374	203	587	64	651
Building and construction.....	4	12	321	215	552	101	653
Public utilities.....	8	8	326	156	498	100	598
Transportation.....	6	8	448	496	958	101	1,059
Provincial highways department.....	2	2	67	6	77	22	99
Dominion Government employees.....	3	12	249	16	280	71	351
Halifax relief commission.....			2		2		2
Total.....	62	201	6,023	2,076	8,362	1,144	9,506

¹ Includes 1 fatality.

Ontario

THE report for 1929 of the Workmen's Compensation Board of Ontario presents the experience under the act for the calendar year 1929 and revised final data for the operations during 1928, with a brief review of yearly activities since the act became effective on January 1, 1915.

The industries coming under the act are enumerated in two schedules. Schedule 1 contains a large number of industries, from which the board collects assessments for an accident fund to cover payments of compensation and medical aid for these industries.

The industries in Schedule 2 consist of certain large public service and municipal corporations, which do not contribute to the accident fund. Each is individually liable for compensation and medical aid to its own employees, but under regulations of the board. Those who have accidents are assessed for their proportion of administrative expense. The Dominion of Canada is included, as a special Dominion act provides that all Government employees are subject to the compensation arrangements of the Province in which they work.

A digest of the main features in the experience of 1929, as compared with 1928, is shown below.

TABLE 1.—EXPERIENCE UNDER THE WORKMEN'S COMPENSATION ACT OF ONTARIO, 1928 AND 1929

Item	1928	1929
Industrial accidents reported:		
Schedule 1.....	69, 011	76, 029
Schedule 2.....	5, 815	6, 006
Crown.....	4, 572	5, 066
Total.....	79, 398	87, 103
Awards made:		
Fatal cases.....	453	452
Nonfatal cases.....	35, 781	39, 406
Medical aid cases (Schedule 1 only ¹).....	30, 298	33, 955
Total.....	66, 532	73, 815
Cases reopened.....		276
Claims pending December 31.....	2, 124	1, 988
Benefits awarded during year, regardless of when accidents occurred:		
Compensation.....	\$5, 901, 439. 39	\$6, 626, 633. 16
Medical aid (Schedule 1 only ¹).....	1, 166, 507. 54	1, 385, 524. 62
Total.....	7, 067, 946. 93	8, 012, 157. 78
Employers insured in accident fund, December 31.....	23, 685	24, 078
Estimated pay roll for Schedule 1 industries.....	\$503, 392, 000	\$543, 455, 000
Average assessment per \$100 estimated pay roll.....	\$1. 33	\$1. 35

¹ Medical aid paid direct by employer in schedule 2 and Crown cases, and no data available.

Industries in Schedule 1 are authorized to establish accident prevention associations. The board is authorized to pay part or all of the expenses of such associations from assessments against the respective classes. Out of the 24 classes in the schedule, 16 have combined into one association, and 3 of the others have established individual associations. Grants to safety organizations during the year totaled \$127,638.98.

Cost of Maternity Allowances in Australia

THE annual report of the Australian Commissioner of Maternity Allowances, for the year ending June 30, 1929, gives the statistical data concerning the year's work and a summary of the claims, payments, and costs of the scheme from its beginning in 1912. Under the Australian law a maternity benefit of £5 may be paid in the case of each confinement resulting in the birth of a viable child, but aborigines, Asiatics, and mothers who are neither native born nor permanent settlers in Australia are excluded from the benefits of the act. During the year covered, 132,304 claims for maternity benefit were approved, and the sum of £661,520 (\$3,219,296) was paid out in benefits. Claims to the number of 901 were rejected. In 479 cases the rejection was due to the fact that the mothers were aliens, in 137 to the fact that the child was not viable, and in 113 cases to the failure to make the claim within three months after the birth. The cost of administration was £16,627 (\$80,915), or £2 10s. 3d. (\$12.23) to every £100 (\$486.65) paid out in allowances.

The variations in the number of claims paid and rejected and in the amounts annually paid out in benefits since the scheme was inaugurated are shown in the following table. Payment of allowances began as of October 10, 1912, so that the first line of the table represents less than a year's work.

CLAIMS PAID, CLAIMS REJECTED, AND AMOUNTS PAID IN MATERNITY ALLOWANCES, 1913 TO 1929

Year ending June 30—	Claims paid	Claims rejected	Amount paid in maternity allowances	
			Pounds sterling	United States currency
1913.....	82,475	619	412,375	\$2,006,823
1914.....	134,998	709	674,990	3,284,839
1915.....	138,855	640	694,275	3,378,689
1916.....	131,949	504	659,745	3,210,649
1917.....	132,406	459	662,030	3,221,769
1918.....	126,886	404	634,428	3,087,444
1919.....	124,016	510	620,080	3,017,619
1920.....	125,173	621	625,865	3,045,772
1921.....	140,152	622	700,760	3,410,248
1922.....	138,140	520	690,700	3,361,292
1923.....	137,687	421	688,435	3,350,269
1924.....	134,035	432	670,175	3,261,407
1925.....	137,641	455	688,205	3,349,150
1926.....	136,171	517	680,855	3,313,381
1927.....	132,056	1,122	660,280	3,213,253
1928.....	135,784	1,261	678,920	3,303,964
1929.....	132,304	901	661,520	3,219,287
Total	2,220,728	10,717	11,103,638	54,035,854

It will be noticed that the claims and the payments reached their maximum in 1921, that since then there has been an irregular fall, and that in 1929 the number of claims and the amount paid out in benefit were both lower than in 1914, the first full year of the act's effectiveness. The cost of administration per £100 (\$486.65) paid out in benefits has risen, with some fluctuations, from £1 10s. 6d. (\$7.42) in 1914 to £2 10s. 3d. (\$12.23) in 1929.

National Institution for Social Assistance, Italy

THE National Institution for Social Assistance (*Patronato Nazionale per l'Assistenza Sociale*) was sanctioned under decrees of June 26, 1926, and of December 24, 1927, to help workmen needing assistance under the compulsory insurance acts against accidents in agricultural work (land decree of August 28, 1915), industrial accidents (January 31, 1904), disability and old age (royal decree of December, 1923, No. 3159), tuberculosis (royal decree of October 27, 1927, No. 2055), and unemployment (royal decree of December 30, 1925, No. 3168), and the maternity insurance act (royal decree of September, 1923, No. 2157).

The work of the institution is done gratuitously except for actual disbursements. Its duty is to see that these acts for the benefit of the worker are faithfully observed and to assist workers in obtaining the benefits they should receive thereunder without expense to them. Assistance is given under the agricultural accident act by technical, medical, and legal officers of the institution. Under the industrial accident insurance act, the institution maintains ambulances and a medical and legal staff, obtains for workmen the compensation due them, and saves them the cost of private consultation. Efforts are made to secure pensions under the disability and old age insurance act when a workman suffers a disability which is found to exceed two-thirds of his earning capacity, and pensions are obtained for those 65 years of age; if the required number of payments have not been made for the workmen, an effort is made to get the delinquent employers to pay up. Under the maternity insurance act, the institution obtains allowances in cases of birth or miscarriage after three months' pregnancy, while under the tuberculosis insurance act the institution furnishes medical certificates and helps workmen to obtain insurance payments when afflicted with tuberculosis. The institution also assists workmen who have been denied the insurance payments due them under the unemployment insurance act.

The institution has recently issued a report describing its activities during the year 1929 and giving statistics for each year since its establishment.¹ During the year 1929 the institution assisted 132,500 workmen, enabling them to secure 133,000,000 lire (\$7,049,000), of which 7,000,000 lire (\$371,000) represents annual pensions. It provided 125,000 medical visits, issued 80,000 health certificates, gave legal aid in 8,600 cases, and obtained 2,000,000 lire (\$106,000) in insurance contributions. Of the total amount secured, 124,000,000 lire (\$6,572,000) were for disabilities from accidents.

About half of the cases of temporary disability last from 6 to 10 days and need no help from the institution. In 1929 15,235 permanent disability cases, or about 60 per cent of all such cases, were settled through the institution, while of the fatal accident cases, 1,115 out of 2,120 were so settled.

¹ *Patronato Nazionale per l'Assistenza Sociale. Relazione statistica sull'attività svolta nell'anno 1929-VII. Rome, Società An. Editrice Filippo Corridoni, 1930.*

Industrial Accidents

OF THE 70,855 industrial accident cases before the institution in 1929, 21,584 were continued from 1928 and 49,271 arose in 1929. Of the total cases handled in 1929, 43,091, or 60 per cent, were settled during the year—35,752, or 80 per cent, of them successfully and 7,339 either lost or abandoned—and 27,764, or 40 per cent, were still pending at the close of the year. The compensation obtained in the successful cases amounted to 101,572,718 lire (\$5,383,354). Of the cases settled through the institution in 1929, 48.6 per cent were temporary disability cases, 48.2 per cent were permanent disability cases, and 3.2 per cent were fatal cases. In most of the cases of permanent disability the controversy was in regard to the amount due.

The number of persons assisted were 23,000 in 1926, 51,320 in 1927, 59,314 in 1928, and 70,885 in 1929.

Agricultural Accidents

THE number of agricultural accidents coming before the institution in 1929 was 31,238, of which 10,749 were continued from the preceding year and 20,489 arose during 1929. Of the total number of cases handled in 1929, 18,533 were settled and 12,705 were still pending at the end of the year. Incapacity for 10 days is required in order to receive compensation under the act, and in 1929 compensation amounting to 22,500,000 lire (\$1,192,500) was secured through the efforts of the institution.

The number of persons aided were 8,464 in 1926, 18,769 in 1927, 25,234 in 1928, and 31,238 in 1929.

Invalidity Pensions

OF THE 7,231 cases coming before the institution in 1929, 2,142 were pending at the beginning of the year and 5,089 arose during the year. Of the total number, 4,486 were settled, 3,940, or 75 per cent of them, reaching a satisfactory conclusion, and 1,146 being lost or abandoned. At the end of the year, 2,745 cases were still pending. The total amount of annual pensions granted in 1929 to those assisted by the institution was 2,720,458 lire (\$144,184).

The number of invalids pensioned was 2,080 during the year 1926, 4,000 in 1927, 6,441 in 1928, and 7,231 in 1929.

Old-age Pensions

OF THE 12,423 cases of old-age pensions brought before the institution in 1929, 4,382 were pending at the beginning of the year and 8,041 arose during the year. The total amount of annual pensions granted was 4,284,293 lire (\$227,068), or an average of 684 lire (\$36) per year.

The numbers applying for pensions were 6,143 in 1926, 9,924 in 1927, and 13,926 in 1928.

Allowances in Death Cases

THE number of allowances in death cases coming before the institution in 1929 was 5,569, of which 1,282 were continued from the preceding year and 4,287 arose during 1929. Of the total number, 4,333 were settled during the year—3,788 satisfactorily and 545 lost—leaving 1,236 pending at the end of the year. The allowances in death cases coming before the institution numbered 4,000 in 1926, 5,403 in 1927, and 6,451 in 1928. The allowances in death cases in 1929 amounted to 1,136,000 lire (\$60,208).

Allowances in Maternity Cases

ON May 13, 1929, the allowance for maternity was increased by decree law No. 850 from 100 to 150 lire (\$5.26 to \$7.89). The institution handled 5,193 cases in 1929, of which 4,728 were settled during the year and the rest were pending at the end of the year. Of these, 4,479, or 95 per cent, were allowed and 249 were denied. Allowances in maternity cases numbered 930 in 1926, 2,538 in 1927, and 4,722 in 1928. In 1929 these allowances amounted to 447,900 lire (\$23,739).

PUBLIC-SERVICE RETIREMENT SYSTEMS

Federal Employees' Retirement Act of 1930

ON May 29, 1930, President Hoover signed an amended act¹ for the retirement of employees in the Federal classified civil service, effective July 1, 1930. The law creating the first retirement system of general application to Federal employees was approved on May 22, 1920, (41 U. S. Stat. L. 614). This law was later amended by four separate enactments of the Sixty-seventh Congress (42 U. S. Stat. L. 364, 470, 651, 1047). On July 3, 1926, after six years' experience, Congress reenacted the law (44 U. S. Stat. L. 904) with several changes, the most important of which provided for more liberal coverage; an increase in the percentage of contribution by the Federal employees from 2½ to 3½ per cent of their basic annual salaries; an increase in the maximum annuity from \$720 to \$1,000; and credit for every year's and every month's service up to 30 years instead of dividing the credit for service into three-year periods.

General System of Contribution

BEFORE analyzing the provisions of the 1930 Federal employees' retirement law it might be advisable to review briefly the early history and the general nature of the original law. According to the provisions of the act of May 22, 1920, an old-age insurance system was created for employees in the service after the passage of the act, and an old-age pension system to those employees in the service prior to the act.

Under the old-age insurance system an employees' retirement and disability fund was established. An arbitrary rate of 2.5 per cent was fixed by Congress as the amount to be deducted as the employees' contributory share. The Government impliedly assumed the difference between the 2.5 per cent and the actual cost of the system. No appropriation, however, was made nor percentage of contribution fixed. Upon the subsequent passage of the amended act in 1926, Congress reduced the Government's liability to the fund from three-eighths to one-eighth by increasing the employee's contribution from 2.5 per cent to 3.5 per cent.

In 1920, upon the passage of the first act, there were many old employees who became at once eligible for retirement. Under the terms of the act they were retired and were entitled to benefits, for which the Government assumed full responsibility. In the nature of things, these employees had contributed nothing to the fund, and everything given them was a pension. They are therefore solely pensioners of the Government, and for the payment of these former employees the Government alone must assume the burden. The fund created by the employees' deductions can not assume the responsibility nor be liable for any payments made to these pensioners.

¹ Public bill No. 279, 71st Cong., 2d sess.

Those employees who in 1920 had been in the service of the Government although not subject to retirement at the time of the passage of the act were obliged to have the deduction of 2.5 per cent taken from their salary as their contribution to the fund. To the extent that these employees rendered service and contributed to the fund after the 1920 act the fund is liable for their annuity, but for that service rendered prior to the act of 1920 the Government alone is liable.

Congress having failed to make an appropriation for the initial administration of the act, those officials in charge of the administration of the act, in order to make payments to annuitants who had immediately retired, took part of the money which had been deducted from the salaries of the employees and paid it to those employees who had already retired under the act. Authority was granted under the law to make payments for this purpose out of the fund. The amount therefore taken from the fund may be considered a forced loan, forced since the employees had no authority in the matter, and a loan because it must be assumed that Congress will repay them. No appropriation was made during the period 1921 to 1928, but for the fiscal year ending in 1929 Congress contributed \$19,950,000, and for the fiscal years ending in 1930 and 1931, \$20,850,000. The appropriation for the latter two years is to be supplemented by \$150,000 to take care of employees of the District of Columbia.

Under the retirement law, it may be summed up, the Government is liable (1) to the fund for the difference between the 3.5 per cent and the actual cost, (2) to annuitants or pensioners to the extent of benefits allowed for service rendered before the passage of the act of 1920, and (3) to the fund for the forced loans.

The actuaries estimate the value of all future payments to present annuitants and to persons now in active service who will in the future go on the retired roll as \$930,167,471, made up as follows:

Funds on hand.....	\$119, 525, 395
Future contributions of employees.....	356, 775, 690
Appropriations required of Government.....	453, 866, 386
Total.....	930, 167, 471

The \$453,866,386 required from the Government may be divided into three parts—\$49,440,796, which represents the present value of the future contributions based on 0.48 per cent of the pay roll of present employees; \$20,500,000 due the fund July 1, 1929, and \$383,925,590 which is the accrued liability or the amount which must be made up to offset the lack of contributions in the past. On the basis established in 1927 by the actuaries, a deficiency contribution of 1.97 per cent of pay roll is payable by the Government until the accrued liability is liquidated.

The following table ² shows that a contribution of 5.95 per cent of pay roll would amply support the plan. Deducting the employee's contribution of 3.50 per cent would leave 2.45 per cent of pay roll to be met by the Government, of which per cent 0.48 would be the normal rate, and 1.97 the deficiency rate.

² U. S. Bureau of Pensions, Ninth Annual Report of the Board of Actuaries, Civil Service Retirement and Disability Fund, as of June 30, 1929. Washington, 1930. (H. Doc. No. 201, 71st Cong. 2d Sess., p. 6.)

ANNUAL COST OF RETIREMENT AND DISABILITY FUND, JUNE 30, 1929

Group retirement age	Normal cost		Deficiency cost		Total cost	
	Percent- age of pay roll	Annual amount as of June 30, 1929	Percent- age of pay roll	Annual amount as of June 30, 1929	Percent- age of pay roll	Annual amount as of June 30, 1929
62.....	3.97	\$2,426,559	3.02	\$1,845,896	6.99	\$4,272,455
65.....	4.02	20,724,654	1.95	10,053,004	5.97	30,777,658
70.....	3.91	10,356,757	1.76	4,661,865	5.67	15,018,622
Total.....	3.98	33,507,970	1.97	16,560,765	5.95	50,068,735
Payable by employees.....	3.50	29,453,891	-----	-----	3.50	29,453,891
Payable by Government.....	.48	4,054,079	1.97	16,560,765	2.45	20,614,844

As to the liquidating period of the accrued liability the actuaries said that:

In making its appropriation for the past two fiscal years the Government set its rate at 2.50 per cent instead of 2.45 per cent. It is, therefore, liquidating its accrued liability at a little more rapid rate than anticipated in the method outlined by the board of actuaries. If the Government continued to contribute at the rate of 2.50 per cent the liquidation of the accrued liability may be expected to be completed in a period of about 71 years beginning in 1927, if the pay roll upon which the contributions are based does not increase; if the pay roll increases by 1 per cent each year the percentage will liquidate the accrued liability in approximately 42 years; if it increases by 2 per cent each year, about 33 years will be required for the liquidation of the accrued liability, while if the pay roll increases by 3 per cent each year the period required to liquidate the accrued liability will be only about 28 years.

Analysis of Retirement Act of 1930

Employments Covered

THE employees within the scope of the act include:

1. All employees in the classified civil service of the United States.
2. (a) Superintendents of national cemeteries; (b) Employees engaged in offices of—

- (1) Solicitors of executive departments.
- (2) Architect of the Capitol.
- (3) Library of Congress.
- (4) United States Botanic Garden.
- (5) Recorder of deeds and register of wills in District of Columbia.
- (6) United States Soldiers' Home.
- (7) National Home for Disabled Volunteer Soldiers.
- (8) Certain State Department activities (not covered by act of May 24, 1924, ch. 182 (43 U. S. Stat. L. 144)) and the Indian Service.

3. All employees of the Panama Canal on the Isthmus of Panama who are citizens of the United States.

4. Certain unclassified employees in cities and establishments in which appointments are made under specified conditions.

5. All regular annual employees of the municipal government of the District of Columbia appointed by the commissioners or other competent authority.

6. All employees to whom the Federal employees' retirement act of May 22, 1920, and amendments shall have been extended by Executive order.

7. Postmasters of the first, second, and third class who have been promoted, appointed, or transferred from the classified civil service.

Employees whose employment is intermittent or of uncertain duration and who fall within groups 2, 3, and 4, do not come under the act, and any employee or group of employees so employed may be excluded at the discretion of the President from coverage by the act. Any employee or group of employees in the civil service not covered may be brought under the act by Executive order upon recommendation of the Civil Service Commission.

Several classes of employees are specifically excluded from the act. They are (a) certain employees of the lighthouse service, (b) members of the police and fire departments, and school officers and teachers of the District of Columbia, (c) postmasters, except those described in group 7 above, (d) employees excluded by Executive order from the benefits of the Federal employees' retirement act of May 22, 1920. Groups (a) and (b) are covered by special retirement systems.

Retirement

All employees covered by the act who have attained the age of 70 years and rendered at least 15 years of service are eligible for retirement and an annuity as described below; except that, after 15 years of service, letter carriers, post-office clerks, sea-post clerks, employees of the Indian Service at large not including clerks, laborers and mechanics generally, are eligible for retirement and the annuity upon attaining 65 years; and after 15 years of service, railway postal clerks, mechanics and laborers in navy yards including leading men and quartermen (excluding master mechanics and foremen) and those employees whose occupations are hazardous or require great physical effort or which necessitate exposure to extreme heat or cold, and employees 15 years or more in service in the Tropics are eligible upon attaining the age of 62 years.

The classification of employees for the purpose of assignment to the various age groups is determined jointly by the Civil Service Commission and the heads of the department, branch, or independent office of the Government concerned. The term "mechanics" is defined to include certain employees of the Government Printing Office, and special provision is made for certain mechanics transferred or reduced to minor positions. Provision is made in the act for optional retirement of an employee two years earlier than he would otherwise be eligible, provided he has rendered 30 years of service, viz., an employee eligible for retirement at 70 years, 65 years, or 62 years, may retire at the age of 68, 63, and 60 years, respectively.¹

The act provides that all employees covered by the act shall, on arriving at retirement age, and having rendered 15 years of service, be automatically separated from the service and all salary shall cease, but if the head of the department, branch, or independent office

¹ The Pension Bureau has ruled (order of June 6, 1930) that all annuities shall commence on the 1st day of the month following the month in which the eligibility is reached, according to an act of Apr. 23, 1930 (Public Act No. 165, 71st Cong.), providing for a uniform retirement date, e. g., in the case of an employee whose birth date or other date of eligibility falls upon the 1st, 2d, 10th, or other day of the month, the annuity shall begin on the first day of the next succeeding month.

certifies to the Civil Service Commission that by reason of the efficiency and willingness of the employee to remain in the civil service the continuance of such employee therein would be advantageous to the public service, such employee may be retained in the service for a term not exceeding two years upon approval and certification by the Civil Service Commission, receiving additional extensions for two-year periods thereafter. After August 20, 1930, however, no employee may be continued in the civil service more than four years beyond the age of retirement, unless certification is made by the head of the department, approved by the Civil Service Commission, that by reason of expert knowledge and special qualifications the continuance of such employee would be advantageous to the public service, then, additional extensions of two years may be granted.² No person receiving the old-age annuity may be employed again in any position covered by the act.

Disability Retirement

Any employee covered by the act who has had five or more years of service and who before becoming eligible for old-age retirement becomes totally disabled for useful and efficient service by reason of disease or injury not due to vicious habits, intemperance, or willful misconduct on his part, shall upon his request or the request or order of the head of the department, branch, or independent office concerned, be retired and allowed an annuity.³ The application for retirement must be made prior to or within six months after separation from the service. In the case of an employee who has heretofore failed to file an application within six months after separation, it is provided that one may be filed within three months after the effective date of the act.

Medical examination by a medical officer of the United States or physicians or surgeons designated by the Commissioner of Pensions, showing disability, is required. An annual medical examination is required in each case (unless permanently disabled) until the employee reaches the regular retirement age. Payment of annuity is suspended in case the annuitant fails to appear for examination. No person shall be entitled to both the payments under this act and those under the United States employees' compensation act for the same period of time, but the employee may elect to receive the greater benefit conferred by either act for any part of the time.

Employees 55 years of age or over, who, after at least 15 years of service and before becoming eligible for old-age retirement, become involuntarily separated from the service, but not by reason of misconduct or delinquency, are entitled to certain allowances described below. These allowances, however, cease if such employees be reemployed in the Government service.

² Under Retirement Circular No. 63, issued June 24, 1930, the United States Civil Service Commission has ruled that this section of the amended act is "highly exceptional and will be so construed." The Civil Service Commission states that "the basis of each extension will be the interest of the service. The interest of the individual is not at all an element. Expert knowledge and special qualifications of the employee and the Government's need of them must be the basis of any extension under the amendment."

³ The Pension Bureau, under circular letter dated June 12, 1930, decided that no retroactive effect may be given to this provision of the act, and that it does not apply to employees who left the service prior to July 1, 1930.

Annuities and Refunds

The annuity allowed an employee for old-age retirement under the act is (1) a sum equal to \$30 for each year of service (not to exceed 30) and (2) the amount of annuity purchasable with the sum credited to the individual employee's account, plus 4 per cent interest compounded annually, according to the experience of the civil service retirement fund as shown in the table of annuity values prepared by the Board of Actuaries from time to time. It is provided that the total annuity paid shall not be less than an amount equal to the average annual basic salary (not to exceed \$1,600) received by such employee during any five consecutive years (optional with the employee) multiplied by the number of years of service (not to exceed 30) and divided by 40. Provision is also made that an employee may elect to receive, instead of the life annuity, an increased annuity of the same value, with the condition, however, that no part of the principal unexpended at the annuitant's death shall be returned to the estate.

The law provides that all periods of service shall be included for the purposes of the act and that the annuity shall be fixed at the nearest multiple of 12. However, all bonuses, allowances, etc., for compensation given in addition to the base pay are excluded from the operation of the act.

An employee retired under the act because of disability shall be entitled to an annuity computed on the same basis as that for old-age retirement, but if the annuitant before reaching retirement age is found, after examination, to be restored to an earning capacity which would permit him to be appointed to some appropriate position fairly comparable in compensation to the position occupied at the time of retirement, then payments cease 90 days after such examination.

An employee 55 years of age or over, involuntarily separated from the service after at least 15 years of service and before becoming eligible for old-age retirement, may elect to be paid either—

- (a) The total amount of his deductions with interest; or
- (b) An immediate life annuity, beginning at the date of separation from the service, having a value equal to the present worth of the deferred annuity which would be allowed him at the age at which he would otherwise become eligible for retirement; or
- (c) A deferred annuity, beginning at the age at which the employee would otherwise have become eligible for retirement, of the amount which would have been allowed him at that age.

An employee between 45 and 55 years of age, involuntarily separated from the service after at least 15 years and before becoming eligible for retirement, shall be entitled to a deferred annuity, but upon reaching 55 years of age may elect to receive the immediate annuity as provided in paragraph (b) above.

The amount deducted from the basic salary of each employee covering the period from August 1, 1920, to July 1, 1930, shall be credited to an individual account of such employee to be maintained in the office where the employee is employed, and amounts deducted after July 1, 1930, less the sum of \$1 per month, shall likewise be credited to such individual account. An employee covered by the act who is transferred to an employment not under the act, or who

becomes separated from Government service before becoming eligible for retirement, shall be refunded the amount deducted from his salary with interest at 4 per cent per annum, compounded on June 30 of each year.

But if such employee reenters the service in any employment covered by the act, such refund must be redeposited with interest in order to receive any benefit under the act. In case of the death of an annuitant after retirement, but before he has received in annuities purchased by the employee's contributions, an amount equal to the total amount to his credit at the time of retirement, the amount remaining to his credit shall be paid in one sum to his legal representatives, unless the annuitant elected to receive an increased annuity as provided for in the act. If an employee dies before becoming eligible for retirement or establishing his claim for an annuity, the total amount of his deductions, with interest, shall be paid to the legal representative. If a former employee entitled to the return of the amount credited to his individual account becomes legally incompetent, the total amount due may be paid to his guardian or committee.

The aggregate period of service which forms the basis for calculating the amount of any benefit is computed from the date of original employment, either as classified or unclassified employee in the civil service of the United States or in the service of the District of Columbia, including periods of service at different times and in one or more departments, branches, or independent offices or the legislative branch of the Government, and service overseas, and the Army, Navy, Marine Corps, or Coast Guard. But in the case of an employee electing to receive a pension or retired pay on account of military or naval service or compensation under the war risk compensation act, the period of his military or naval service upon which such pension is based is not included. He may, if so entitled, receive both a pension for his military or naval service and an annuity under the act. Employees who transfer from an employment covered by the act to an employment not so covered but in Government service, and who later return to an employment under the act, receive credit for such time in the employment not covered, upon contributing to the fund what he would have contributed if he had continued in the covered employment. Periods of separation from the service and any leave of absence exceeding 6 months in the aggregate in any calendar year shall not be included (except beneficiaries under the United States employees' compensation act, and substitutes in Postal Service) in computing length of service.

All persons already retired under the provisions of the act of May 22, 1920, or the act as amended, shall have their annuity computed and paid in accordance with this act, but in no case is the annuity to be reduced.

The act provides that payments shall be made by check on the first business day of each month following the period for which the payment has accrued. The old-age retirement annuity commences from the date of separation from the service and continues during the life of the annuitant.

None of the moneys mentioned in the act are assignable, subject to execution, levy, attachment, garnishment, or other legal process.

Source of Funds

Funds are secured by deductions from the basic salary, pay, or compensation of all employees covered by the act. Prior to July 1, 1926, the deductions were at the rate of 2½ per cent. Since that time, however, employees have been required to contribute 3½ per cent of their basic salaries. The amounts so deducted are deposited in the Treasury of the United States to the credit of the "civil service retirement and disability fund" for the payment of annuities, refunds, and allowances.

The Secretary of the Treasury is authorized to receive as a supplement to the fund any donations by private individuals or organizations for the benefit of civil service employees.

All employees covered by the act are deemed to have consented and agreed to the deductions.

The Secretary of the Treasury is directed to invest portions of the retirement fund in interest-bearing securities of the United States or Federal farm-loan bonds and the income from such investments is made a part of the fund.

Administration

Commissioner of Pensions.—The administration of the act is placed in the Commissioner of Pensions under the direction of the Secretary of the Interior. An appeal to the Secretary of the Interior is allowed from a final order of the Commissioner of Pensions. The Commissioner of Pensions is required to make a detailed comparative report annually and transmit to Congress, through the Secretary of the Interior, reports and recommendations of the Board of Actuaries.

[Under a presidential order of July 21, 1930, consolidating governmental activities affecting war veterans, the duties and powers formerly vested in the Pension Bureau of the Department of the Interior are now transferred to the new Veterans' Administration.]

Civil Service Commission.—The Civil Service Commission is required to keep a record of appointments, transfers, and other essential information concerning individual service, and to furnish the Commissioner of Pensions such reports therefrom as he shall request. The commission is also required to prepare and keep tables and records showing mortality experience and percentage of withdrawals from service and other information which may serve as a guide for future valuations and adjustments of the plan for retirement.

Board of Actuaries.—Three actuaries (one of whom shall be the Government actuary) selected by the Commissioner of Pensions and known as the Board of Actuaries shall annually report upon the actual operations of the act, recommend changes which in their judgment are deemed necessary, make a valuation of the "civil service retirement and disability fund" at 5-year intervals or oftener if necessary, and prepare such tables as may be required by the Commissioner of Pensions for the purpose of computing annuities under the act. The Commissioner of Pensions is authorized to fix the compensation of the Board of Actuaries, except that of the Government actuary.

Statistics of Operation of the Act

The report relating to the Bureau of Pensions for the fiscal year ending June 30, 1929, found in the annual report of the Secretary of the Interior, contains the number of claims before the bureau, and the receipts and disbursements under the operation of the act during the fiscal year. Of the 32,321 claims before the bureau for action during the year, 30,640 were disposed of, leaving 1,681 active claims awaiting final settlement.

The following statement shows the receipts and disbursements under the civil service retirement act for the year ending June 30, 1929:

Balance in the fund June 30, 1928.....	\$83, 078, 000. 43
Amount deducted from salaries of employees during year.....	28, 019, 824. 61
Interest and profits.....	4, 550, 042. 24
Appropriated from general fund of the Treasury.....	19, 950, 000. 00
Total in fund.....	135, 597, 867. 28
Disbursements on account of annuities.....	12, 005, 048. 88
Disbursements on account of refunds.....	4, 067, 423. 54
Total disbursements.....	16, 072, 472. 42
Balance in the fund June 30, 1929.....	119, 525, 394. 86

Operation of Employees' Retirement System of Hawaii

THE fourth annual report of the board of trustees in charge of the employees' retirement system of the Territory of Hawaii covers its operation for the year ending June 30, 1929. The plan includes employees of the Territory, of the city and county of Hawaii, and of the counties of Maui and Kauai. As of June 30, 1929, the active membership of the system was 3,966, with a pay roll of \$7,101,648 per annum. Of these members, 2,237 were eligible for credit for service prior to the adoption of the system, and 1,759 were not eligible. There were 132 beneficiaries upon the retired list, drawing allowances amounting to \$107,564 per annum. The total assets at the end of the year amounted to \$1,831,378.

The law establishing the system provided for an actuarial examination and valuation of the mortality, service, and compensation experience of its members in 1929, and at least once in each five-year period thereafter. Reporting upon this valuation and examination, the actuary states that the present condition of the fund is satisfactory, mentioning that the number of retirements has not been so great as expected, so that the demands upon the fund have been fewer than anticipated, and that deaths among the beneficiaries have exceeded the number calculated, so that individual allowances have not absorbed as much of the fund as the preliminary estimates allowed for. On the other hand, deaths among dependents of beneficiaries have not been quite so numerous as expected. However, the experience has been so brief that it seems wise not to change the present rates.

LABOR LAWS AND COURT DECISIONS

Labor Legislation of 1929

DURING the year 1929 the legislatures of 43 States met in regular session, Alabama, Kentucky, Louisiana, Mississippi, and Virginia being the only States which did not meet in regular session during the year. Louisiana and Mississippi, however, held special sessions. Of the States holding regular sessions, eight of them (Connecticut, Florida, New Mexico, Oklahoma, Tennessee, Texas, West Virginia, and Wyoming) held extra sessions. Alaska, Hawaii, Porto Rico, and the Philippine Islands held regular sessions and an extra session was called in Porto Rico. The Congress of the United States also convened in special and in regular sessions.

Legislation affecting labor in some respect was passed by all of the legislatures meeting during the year, whether in regular or special session, with the exception of Louisiana and Mississippi.

During the year 1929, four States (California, Minnesota, Utah, and Wyoming) provided for the establishment of old-age pension systems. Florida, Maryland, and New Hampshire repealed the mothers' pension law, and enacted new legislation. The subject of the examination and licensing of barbers received attention by the enactment of new legislation in Arizona, Montana, Nevada, North Carolina, Tennessee, and Texas, and for the examination and licensing of beauty-parlor employees in Arizona, Hawaii, Idaho, Missouri, Montana, and Nebraska.

In this article an outline of labor legislation is offered under topical headings and is useful principally for ready reference purposes or as a check of the States which have acted upon the topical labor legislation subjects. The annual compilation containing references, summaries, and reprints of all labor laws for the year 1929 is in preparation and will be issued shortly.

Following the policy of issuing a separate bulletin on workmen's compensation legislation, no reference is made in this article to that subject. For changes in the State workmen's compensation laws for 1929, digests which were made in several issues of the *Labor Review*¹ during 1929 and 1930, have now been brought together in one reprint, and is available for distribution.

Contract of Employment

THE Texas law (ch. 189) made it unlawful now for a person to go on the premises of a citizen in the night time and remove any laborer or tenant. Wisconsin (ch. 123) declared all contracts of employment void which stipulate that neither party may join a labor organization or any organization of employers. Protection to woman employees engaged in moving boxes or receptacles was enlarged in California

¹ May (1929), pp. 135, 136; August (1929), pp. 85-88; September (1929), pp. 89, 90; October (1929), pp. 73-77; November (1929), pp. 52-55; December (1929), pp. 71-73; and March (1930), pp. 68-70.

by chapter 768. Arizona (chs. 85, 105) and Hawaii (No. 103) acted upon the subject of employment of aliens on public works. By chapter 559, California specified the uses to which a bond put up by an employee or by an applicant for employment may be employed. The law prohibiting the blacklisting of employees was enlarged and made more specific in the States of California (ch. 586) and Texas (ch. 245). Colorado (ch. 121) made it unlawful for an employer to interfere in the political rights of an employee.

Employment Agencies

Private agencies.—Farm labor employment agencies were added to the California employment agency law (ch. 89), and a notice relative to return of fees if no employment is obtained must be inserted in the receipt and the posted schedule of fees (ch. 215). The deputy State labor commissioner of Colorado (ch. 145) is now charged with the administration of the law. By chapter 49, Iowa strengthened the provisions of the employment agency law, and extended the fee-charging exemption to several organizations. Michigan (ch. 321) repealed and reenacted the entire private employment agency act. The Industrial Commission of Minnesota (ch. 293) may now refuse to grant a license if the applicant is not a suitable person or the place is unfit for such use or the needs of the community do not warrant the licensing of another agency. By chapter 164, New York exempts certain associations of registered nurses from the act. North Carolina (ch. 178) supplemented the existing private employment agency law by a new law. Oregon (ch. 297), Pennsylvania (No. 438), and West Virginia (ch. 12) enacted legislation which strengthened their laws.

Public agencies.—Delaware passed an act authorizing the creation of an employment bureau to cooperate with the United States Employment Service and the city of Wilmington (ch. 108). By chapter 171, Nevada merely authorized the commissioner to attend conferences outside the State relative to labor and employment conditions.

Emigrant agents.—Georgia (No. 306, p. 176) defined the word "emigrant" as any person who has been solicited, persuaded, enticed, etc., to leave the State to be employed beyond the limits of the State. Texas passed three acts on the subject of emigrant agents. Chapter 104 (first called session) provided for the licensing of emigrant agents, which law was subsequently repealed by chapter 96 (second called session). By chapter 11 (second called session) a tax of \$1,000 was provided and in addition a tax of \$100 to \$300, according to the population of the county in which the agent intends to operate.

Group Life Insurance

NINE States passed statutes concerning group life insurance. The laws in California (ch. 245), Colorado (ch. 110), Iowa (ch. 221), Massachusetts (ch. 121), Michigan (No. 154), New York (ch. 292), Pennsylvania (No. 336), Washington (ch. 129), and Wisconsin (chs. 317, 372) were enlarged so as to include either members of labor unions or of national guards or certain other specified groups of employees.

Hours of Labor

Private Employment

Women and children.—Penalties for violation of the 8-hour law for females were increased in California (ch. 40) and a record must be kept of hours worked by female employees (ch. 266), and said law was also amended (ch. 286) by extending its application to any industry and also to barber shops. Certain telephone operators are exempt from the 1-hour rest law, where six hours' continuous labor is performed, in Maine (ch. 179). Michigan enlarged the law limiting the hours of labor so as to include those employed in hospitals, with special exemption to student nurses in hospitals (No. 299). The Pennsylvania act (No. 256) increased the penalty for violations of the law. By chapter 1316, Rhode Island now exempts certain women employed by public utilities from the provisions of the act. By chapters 86 and 87 (first called session) Texas now exempts certain employees (superintendents, matrons, nurses of orphans' homes) from the law relative to the hours of labor of females. The Wyoming act (ch. 13) materially strengthened the existing law.

Men.—The penalty for violations of the hours of labor law in mines and smelters in Montana was increased (ch. 116). In New Hampshire (ch. 93) 10 hours' actual labor is now considered a day's work unless otherwise agreed.

Public Works

The following States acted upon the subject of hours of labor on public works: California (ch. 793), Oregon (chs. 137, 224, 358), and Wisconsin (chs. 367, 447).

Child Labor

THE child labor law in Illinois (p. 429) was amended in several particulars. In Indiana (ch. 76) children acting as caddies are now exempt from the provisions of the law. The Michigan law (No. 102) was enlarged relative to dangerous occupations, and in Minnesota (ch. 234) the law was strengthened. The child labor law of Missouri was repealed and reenacted with several important changes (p. 130). The Oklahoma law was weakened by allowing nonresident children of the State employed in theaters an exemption from the child labor law under certain conditions (ch. 35). Texas (ch. 180) acted upon the subject especially pertaining to the penalty for violations of the act. The subject of school attendance received attention in Alaska (ch. 97), California (chs. 82, 546), Illinois (p. 726), Maryland (ch. 491) Nebraska (ch. 87), Pennsylvania (No. 41), and Utah (ch. 23), while the subject of continuation schools for employed children was legislated upon in California (chs. 185, 187), Iowa (ch. 108), and Utah (ch. 47).

Safety and Health

Employment in mines, etc.—Laws tending to improve the safety and health of miners were passed in several States. Arizona (ch. 73) established a State hospital for disabled miners. The coal mine inspection act of Colorado (ch. 68) was enlarged in many details. In Missouri (p. 256) the salaries of certain mine inspectors were increased, and the law creating the State mining board was repealed. A bureau

of mines was established in Nevada by chapter 194. Oklahoma (chs. 42 and 251) enacted a new law applicable to lead and zinc mines, and also enacted a new coal mining code. Several acts (chs. 190, 254, 264, and 390) were adopted in Pennsylvania extending safety provisions in mines. The law requiring inspection fees in Tennessee coal mines (ch. 28) was repealed. Two acts (chs. 16 and 17) were enacted in West Virginia; the first increased the number of mine inspectors and adopted additional safety provisions and the second increased the salary of the chief of the department of mines. Wyoming added four chapters (chs. 28, 29, 30, and 34) which provided for additional safety regulations in coal mines.

Boiler inspection.—In Arkansas (ch. 303) the salaries of certain employees in the boiler inspection department were increased. Permits to operate an air-pressure tank or steam boiler must be secured in California (chs. 180, 181). Pennsylvania (ch. 451) strengthened the boiler inspection law.

Factory inspection.—The factory inspection law of Colorado (ch. 95) was enlarged to include schoolhouses, theaters, moving-picture houses, and places of public assemblage. The powers of factory inspectors were enlarged in Michigan (ch. 102) and the regulation of fans and blowers in factories was provided for (ch. 301). Nebraska acted upon the subject of safety codes (ch. 138). By chapter 296, New York amended the law relative to office room partitions. The subject of fire hazards in dry-cleaning establishments was acted upon in Oregon (ch. 424). Penalties for violations of the factory law in Pennsylvania were increased by chapter 256, and the law relative to inspection of elevators (ch. 452) and safety codes (ch. 453) was strengthened. Porto Rico (ch. 37) now exempts certain dressmaking establishments from the law requiring a physician to be employed. Three acts were passed in Rhode Island—chapter 1310 relative to the reporting of certain data by firms employing 5 or more persons; chapter 1311 relative to appropriations for factory inspectors; and chapter 1331 (p. 104) relative to appeals from a factory inspector's orders. Wisconsin provided for increased safety measures in dyeing and cleaning establishments (ch. 67) and that a contractor must comply with the provisions of the State electrical code (ch. 470).

Sanitation.—In California (ch. 348) a duty is now imposed on health officers to report violations of the law applicable to foundry sanitation. Textile manufacturers must install sewerage systems in company houses in South Carolina (No. 249). Connecticut passed a law (ch. 298) requiring sanitary conditions to be kept in bakeshops, and the law in Pennsylvania (No. 240) pertaining to the health of persons employed in bakeries was also improved.

Miscellaneous.—New Jersey (ch. 90) amended the law relating to work in compressed-air chambers. The public utilities commission of Ohio (p. 256) was authorized to promulgate and enforce orders relating to the protection and safety of railroad employees. By chapter 82, Vermont extended the jurisdiction of the public service commission to cover working conditions (washroom and locker facilities) of railroad terminal employees. West Virginia (ch. 83) authorized the adoption of safety codes on building construction. To qualify to operate a steam locomotive, a person must be on the service list for three years as a locomotive fireman in Wisconsin (ch. 460).

Wages

IN Arizona the salaries of State officers and employees may now be garnisheed (ch. 50). In California (ch. 230) the procedure relative to filing preferred claims for wages was changed; and the law prohibiting the issuance of nonnegotiable wage checks was extended to cover "associations," and agents and officers of such (ch. 573). Maryland extended the law relating to the exemption of wages from garnishment to cover judgments for certain necessities of life (ch. 265). Imprisonment may now be imposed in Massachusetts (ch. 117) for failure to pay weekly wages. Certain corporations in New Jersey (ch. 235) may pay wages by negotiable check provided authorization is obtained from the commissioner of labor. North Dakota (ch. 188) raised the salary exemption of the head of a family from \$15 to \$20 per week in garnishment cases.

Connecticut (ch. 54), New Mexico (ch. 128), and Ohio (p. 479) changed the procedure relative to the assignment of wages. In Utah (ch. 9) the law relating to minimum wages paid to female employees was repealed. Nevada (ch. 44) established a minimum wage of \$4 per day for laborers, etc., on public works, and Hawaii (No. 86) fixed a minimum rate of \$3 per day.

Several States enacted legislation for the protection of wages of employees, etc., of contractors, by either amending existing laws or by new acts: Arkansas (No. 368), California (ch. 817), Colorado (ch. 148), Idaho (ch. 254), Indiana (ch. 41), Massachusetts (chs. 110, 111), Minnesota (ch. 369), Oregon (ch. 136), Pennsylvania (Nos. 114, 490), Texas (ch. 226), and West Virginia (ch. 76).

Mechanics' Liens

MECHANICS' liens and general liens for work done by laborers, workmen, and others received attention in the following States: Loggers, California (ch. 157); farmers (crops and farm lands), Illinois (p. 547) and Oregon (ch. 372); water, gas, oil wells, and derricks, Colorado (ch. 123), Pennsylvania (No. 433), and Texas (ch. 223); building and realty, Hawaii (No. 207), Indiana (ch. 113), Michigan (No. 264), New York (ch. 515), and Washington (ch. 230); vehicles and garage keepers, Maine (ch. 279), Minnesota (ch. 302), New York (ch. 28), and Wisconsin (ch. 275); timber products, North Carolina (ch. 69); threshermen, Minnesota (ch. 314), Montana (ch. 20), and North Dakota (ch. 156); spinners and throwsters, Rhode Island (ch. 1354). States which also extended the benefits of the lien, either by creating new liens or by changing the procedure in their enforcement, include California (chs. 868, 869, 870, 871), Oregon (ch. 117), Texas (chs. 211, 224, and 78 (2d called session)), and Utah (ch. 18).

Small Loans

SINCE there is a close connection between the subject of small loans and wages, consideration of the several States which enacted small loans legislation would seem to be justified. The rate of interest was reduced in Maine (ch. 319), New Jersey (ch. 293), and West Virginia (ch. 24). Regulation and strengthening of the small loans act was provided also in Connecticut (ch. 207), Delaware (ch. 260), Maine

(chs. 195, 208, 324), Massachusetts (ch. 159), Missouri (p. 201), Montana (ch. 112), Ohio (p. 43), and Wisconsin (ch. 408).

Cooperative Organizations

CREDIT unions received the attention of several of the State legislatures: Arizona (ch. 58), Florida (ch. 14499—spec. sess.), Kansas (ch. 141), Maryland (ch. 337), Michigan (No. 303), Montana (ch. 105), New Hampshire (ch. 46), New Jersey (ch. 266), New York (chs. 323, 324, 325), North Carolina (ch. 47), Oregon (ch. 396), Texas (ch. 17, ch. 85—2d called session), and Wisconsin (ch. 323).

The following States passed legislation affecting cooperative societies: Iowa (chs. 5, 18, 398), Minnesota (ch. 171), North Dakota (ch. 101), Oregon (ch. 412), Pennsylvania (Nos. 211, 215), South Dakota (chs. 89, 90), and Vermont (No. 81).

Holidays and Days of Rest

ARMISTICE DAY, November 11, was made a holiday in Alaska (ch. 27), Georgia (No. 285, p. 211), and New Hampshire (ch. 11). Hawaii (No. 94) permits the selling of certain articles (poi, rice, and flowers) on Sundays. Certain occupations are exempted from the Maine Sunday law (ch. 303), Massachusetts now permits the sale of bread between certain specified hours (ch. 118). Violations of Sunday law were acted upon in West Virginia (ch. 44).

Labor Unions and Disputes

NEBRASKA (ch. 136) authorized the use of trade-union labels and the filing of the trade-mark for record in the office of the secretary of state. The procedure relative to the granting of injunctions in labor disputes was enlarged in Minnesota (ch. 260).

Pensions

Old-age pensions.—Four States—California (ch. 530), Minnesota (ch. 47), Utah (ch. 76), and Wyoming (ch. 87)—established old-age pension systems. Alaska (ch. 65) revised and codified the former act, and increased the maximum allowance from \$25 to \$35 a month for males. Wisconsin (ch. 181) made several changes and now designates the act as "old-age assistance."

Mothers' pensions.—This was the subject of legislation in Delaware (ch. 251), Florida (ch. 13759), Illinois (p. 198), Iowa (ch. 92), Maine (ch. 204), Maryland (ch. 401), Michigan (No. 33), Minnesota (ch. 101), Nevada (ch. 42), New Hampshire (chs. 145, 177), New York (ch. 347), Oregon (ch. 45), and Pennsylvania (No. 367).

Public employees.—Minnesota established a compulsory State employees' retirement fund (ch. 191). A proposed constitutional amendment was adopted in California (ch. 87, p. 2266), giving the legislature power to provide for a State employees' retirement act. The act applying to certain employees of the United States relative to their retention beyond retirement age was amended (ch. 271, 45 U. S. Stat. L. 1248). Other States which amended or enlarged the retirement act were Georgia (pp. 308, 312, 314), Hawaii (Nos. 68, 182),

Massachusetts (chs. 366, 367), New Jersey (ch. 122), New York (chs. 234, 415, 421, 422, 439, 443, 574), Pennsylvania (Nos. 101, 369, 447, 565), Philippine Islands (No. 3360), and Vermont (No. 61).

Private employees.—New Jersey (ch. 5) has authorized the creation of trust funds for the administration of pensions and disability or unemployment aids for relief of employees.

Vocational Rehabilitation

LEGISLATION on the subject of vocational rehabilitation was enacted in several of the States. Connecticut (ch. 201), District of Columbia (ch. 303, 45 U. S. Stat. L. 1260), Maryland (ch. 201), and Texas (ch. 23—first called session) provided for the acceptance of the Federal vocational rehabilitation act.

Vocational Education

NEW MEXICO (ch. 107) accepted the Federal statute for the further development of vocational education. New York (chs. 264, 407), Pennsylvania (No. 102), Philippine Islands (No. 3377), and Wisconsin (chs. 13, 103, 142, 261, and 444) also passed legislation on the subject. By chapter 153 (45 Stat. 1151), the United States enacted a law for the further development of vocational education in the States and Territories.

Labor Departments

CALIFORNIA passed several acts amending the law relating to the department of labor—chapter 155 created a division of industrial fire safety, chapters 231 and 256 enlarged the powers of the labor commissioner, and chapter 280 concerned the filing of mine reports in the office of the State mining bureau. In Idaho (ch. 5) the law creating the labor commission for arbitration of labor disputes was repealed. In Illinois one of the five industrial officers (pp. 749, 751) was designated as chairman at a salary of \$6,000. The Kansas Commission of Labor and Industry was created by chapter 258, and the commissioners of labor and industry are given the power to appoint certain officers instead of the public service commission as heretofore (ch. 183). Employers of labor in Maine (ch. 146) are no longer required to report accidents to the department of labor if the same have been reported to the industrial accident commission.

A "Bureau for Women and Children" was created in New Jersey by chapter 158 and the powers of the commissioner of labor were enlarged by chapter 207. In New York (ch. 399) the grades of factory inspectors in the department of labor are increased to eight. In Oregon (ch. 344) the bureau of labor statistics and inspector of factories and workshops are hereafter to be designated as the "Bureau of Labor." Pennsylvania, by chapter 450, acted upon the subject of violations of rules and regulations of the department of labor while Rhode Island (ch. 1362) provided that assistants to the commissioner of labor shall be paid not more than \$5 per day instead of \$4 as heretofore.

Investigative Commissions

THE legislatures of several States have provided for investigation on certain subjects affecting labor. In California (ch. 56, p. 2230), convict labor, and (ch. 92, p. 2276) mechanics' lien law, while in Illinois coal-mining conditions (p. 137), retirement fund for State employees (p. 758), child welfare (p. 780—S. J. Res. 23), and conditions pertaining to physically handicapped children (p. 780—H. J. Res. 20) received attention. The textile industry in Massachusetts (ch. 54—Resolves p. 539) and the registration and examining of barbers (ch. 43—Resolves, p. 533) were the subjects for investigation. The general subject of old age in New York (ch. 664) was studied by a State commission, while in Tennessee (S. J. Res. 17) conditions in coal mines, and in West Virginia (S. Con. Res. No. 3) convict labor received attention. In Wisconsin four investigations were provided—retirement plan for State employees (ch. 326), codification of rules of the industrial commission (ch. 393), convict labor (ch. 447) and the investigation of prison labor conditions, provided for in the act of 1927 was continued by chapter 511. In Porto Rico (J. R. 16—special session p. 84), causes of industrial unrest and unemployment were requested by the legislature. Oregon (S. J. R. No. 16) provided for a study of the reorganization of the State departments, with the department of labor and industry as one of the nine departments. By public bill No. 13, the Congress of the United States provided for inquiries on the subject of unemployment in the taking of the fifteenth decennial census.

Miscellaneous

THE following States acted on the subject of giving preferences for local labor and domestic materials: Arkansas (No. 141); Missouri (p. 257); Nevada (ch. 60); and Oregon (ch. 144). Convict labor received attention in several States—California (chs. 125, 881), Indiana (ch. 91), Iowa (ch. 87), Michigan (No. 309), Minnesota (chs. 138, 348), Montana (ch. 173), Nebraska (ch. 137), New Mexico (ch. 50), New York (ch. 243), North Carolina (chs. 221, 292), Oregon (ch. 133), South Dakota (chs. 107, 236), Texas (ch. 229), West Virginia (ch. 51), Wisconsin (chs. 121, 342), United States (45 U. S. Stat. L. 1084).

Pennsylvania (No. 243) authorized the appointment of industrial police by the governor. In California (ch. 891) an employer who collects tips intended for employees by patrons must now post a notice specifying the amount of the tip employee received and also the extent that such employees are required to accept tips in lieu of wages. Texas (ch. 156) acted upon the subject of the removal of railroad shops and terminals.

Right of Railroad Employees to Collective Bargaining Through Own Representative Upheld

THE United States Supreme Court in a recent decision affirmed a decree of the United States Circuit Court of Appeals for the Fifth Circuit, involving the right of railroad employees to bargain collectively through representatives of their own selection. (Texas

& N. O. R. R. Co. *v.* Brotherhood of Railway and Steamship Clerks etc., 50 Sup. Ct. 427).

The suit was originally brought in the District Court for the Southern District of Texas by the Brotherhood of Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Southern Pacific Lines in Texas and Louisiana, against the Texas & New Orleans Railroad Co., to obtain an injunction restraining the railroad company from interfering with or influencing their clerical employees in the matter of their organization and designation of representatives for the purposes specified in the railroad labor act of 1926.¹ For a number of years the Brotherhood of Railway and Steamship Clerks had been authorized by a majority of the railway clerks to represent them in all matters relating to their employment. In the latter part of 1925 the brotherhood applied to the railroad company for an increase of wages for the railway clerks. The application was denied, and subsequently the controversy was referred to the United States Board of Mediation created under the railroad labor act of 1926. During the pendency of the wage dispute the railroad company undertook the formation of a company union, known as the Association of Clerical Employees, Southern Pacific Lines. The brotherhood contended that in accomplishing this the railroad company had endeavored to intimidate its members, and to coerce them to withdraw from the brotherhood and to make the company union their representative in dealings with the railroad company, all of which was a violation of the third paragraph of section 2 of the railroad labor act which provided that:

Representatives, for the purpose of this act, shall be designated by the respective parties in such manner as may be provided in their corporate organization or unincorporated association, or by other means of collective action, without interference, influence, or coercion exercised by either party over the self-organization or designation of representatives by the other.

The District Court for the Southern District of Texas granted a temporary injunction against the railroad company. Subsequently the railroad company refused to recognize the brotherhood, stating that the brotherhood did not represent a majority of the clerical employees, and recognized only the company union, which the company claimed represented a majority of the clerical employees. Contempt proceedings were brought in the district court, and it was found that the railroad company had violated the order of injunction. The court² ordered the railroad to disband its company union and to deal with the brotherhood "until such time as these employees by a secret ballot taken in accordance with the further direction of the court, and without the dictation or interference of the railroad company and its officers, should choose other representatives."

The temporary injunction against the railroad was later made permanent. Thereupon an appeal from such order was taken by the railroad company to the Circuit Court of Appeals for the Fifth Circuit³ and there the decree of the district court was affirmed, holding that the injunction was properly granted.

¹ 44 Stat. L., 577.

² See Labor Review, June, 1928, pp. 96-98.

³ See Labor Review, October, 1929, pp. 78-80.

The railroad company thereupon carried the case to the United States Supreme Court. The contention relied upon by the railroad company was that paragraph 3 of section 2 of the railroad labor act conferred merely an abstract right not intended to be enforced by legal proceedings; that the act, in so far as it attempted to prevent either party from influencing the other in the selection of representatives, was unconstitutional, because it sought to destroy a right guaranteed by the first and fifth amendments of the United States Constitution.

Whether the statute imposed a legal duty upon the railroad company, enforceable by judicial proceedings, the United States Supreme Court in an opinion by Mr. Chief Justice Hughes said, was the important question of law for the court to consider. The court, after reviewing two prior cases⁴ decided by the court, and a brief discussion of events which led to the enactment of the railway labor act of 1926, said that:

It is thus apparent that Congress, in the legislation of 1926, while elaborating a plan for amicable adjustments and voluntary arbitration of disputes between common carriers and their employees, thought it necessary to impose, and did impose, certain definite obligations enforceable by judicial proceedings. The question before us is whether a legal obligation of this sort is also to be found in the provisions of subdivision third of section 2 of the act (45 U. S. C. A., sec. 152, subd. Third) providing that, "Representatives, for the purposes of this act, shall be designated by the respective parties * * * without interference, influence, or coercion exercised by either party over the self-organization or designation of representatives by the other."

It is at once to be observed that Congress was not content with the general declaration of the duty of carriers and employees to make every reasonable effort to enter into and maintain agreements concerning rates of pay, rules, and working conditions, and to settle disputes with all expedition in conference between authorized representatives, but added this distinct prohibition against coercive measures. This addition can not be treated as superfluous or insignificant, or as intended to be without effect. * * * While an affirmative declaration of duty contained in a legislative enactment may be of imperfect obligation because not enforceable in terms, a definite statutory prohibition of conduct which would thwart the declared purpose of the legislation can not be disregarded. The intent of Congress is clear with respect to the sort of conduct that is prohibited.

In reaching the conclusion as to the intent Congress had in mind the Court said that:

Freedom of choice in the selection of representatives on each side of the dispute is the essential foundation of the statutory scheme. All the proceedings looking to amicable adjustments and to agreements for arbitration of disputes, the entire policy of the act, must depend for success on the uncoerced action of each party, through its own representatives to the end that agreements satisfactory to both may be reached and the peace essential to the uninterrupted service of the instrumentalities of interstate commerce may be maintained. There is no impairment of the voluntary character of arrangements for the adjustment of disputes in the imposition of a legal obligation not to interfere with the free choice of those who are to make such adjustments. On the contrary, it is of the essence of a voluntary scheme, if it is to accomplish its purpose, that this liberty should be safeguarded. The definite prohibition which Congress inserted in the act can not therefore be overridden in the view that Congress intended it to be ignored. As the prohibition was appropriate to the aim of Congress, and is capable of enforcement, the conclusion must be that enforcement was contemplated.

⁴*Pennsylvania Railroad Co. v. U. S. Railroad Labor Board* (261 U. S. 72) and *Pennsylvania Railroad System & Allied Lines Federation No. 90 v. Pennsylvania Railroad Co.* (267 U. S. 203).

The Supreme Court cited several cases to emphasize the fact that there was no doubt as to the constitutional authority of Congress to enact the prohibition of the statute, and, continuing, declared that:

Exercising this authority, Congress may facilitate the amicable settlements of disputes which threaten the service of the necessary agencies of interstate transportation. In shaping its legislation to this end, Congress was entitled to take cognizance of actual conditions and to address itself to practicable measures. The legality of collective action on the part of employees in order to safeguard their proper interests is not to be disputed. It has long been recognized that employees are entitled to organize for the purpose of securing the redress of grievances and to promote agreements with employers relating to rates of pay and conditions of work. (*American Steel Foundries v. Tri-City Central Trade Council*, 257 U. S. 184, 209, 42 S. Ct. 72.) Congress was not required to ignore this right of the employees but could safeguard it and seek to make their appropriate collective action an instrument of peace rather than of strife. Such collective action would be a mockery if representation were made futile by interferences with freedom of choice. Thus the prohibition by Congress of interference with the selection of representatives for the purpose of negotiation and conference between employers and employees, instead of being an invasion of the constitutional right of either, was based on the recognition of the rights of both.

The railroad labor act of 1926, the court said, does not interfere with the normal exercise of the right of the carrier to select or discharge its employees, and that:

The statute is not aimed at this right of the employers, but at the interference with the right of employees to have representatives of their own choosing. As the carriers subject to the act have no constitutional right to interfere with the freedom of the employees in making their selections, they can not complain of the statute on constitutional grounds.

The United States Supreme Court, in concluding the opinion, referred to a minor point raised by the railroad company relative to the granting of the injunction in violation of section 20 of the Clayton Act (29 U. S. C. A. sec. 52). The section provides that no injunction should be granted in any case involving employment disputes, unless an irreparable injury to property or a property right was threatened. The court, however, was of the opinion that it was not necessary to pass upon this point—

For if it could be said that it was necessary in the present instance to show a property interest in the employees in order to justify the court in granting an injunction, we are of the opinion that there was such an interest, with respect to the selection of representatives to confer with the employer in relation to contracts of service, as satisfied the statutory requirement.

The decree of the lower court was therefore affirmed.

Employment on Railroad Car Float Covered by Federal Longshoremen's Compensation Act

THE United States Supreme Court, in a recent decision, held that a railroad car float of 500 tons while in navigable waters was subject to the maritime law like any other vessel, and that the case was governed by the Federal longshoremen's and harbor workers' compensation act. (*Nogueira v. New York, New Haven & Hartford Railroad Co.*, 50 Sup. Ct. Rep. 303.) The facts in the case disclose that one Victorio Nogueira was employed by the New York, New Haven & Hartford Railroad Co. as a freight handler, loading freight into railroad cars on a car float in navigable waters at a pier in New

York harbor. While so employed Nogueira was injured when a bale of paper slid down a gangplank and threw him on the floor of the float, crushing his leg.

In an action brought by Nogueira in the United States District Court for the District of New York, he contended that the car float upon which he was working was used as an adjunct to railroad transportation in interstate commerce, and that it was not the intention of Congress to substitute the remedy under the Federal longshoremen's and harbor workers' compensation act for that afforded by the Federal employers' liability act.

The district court, however, dismissed the complaint brought under the employers' liability act. Upon appeal to the United States Circuit Court of Appeals for the Second Circuit, this court affirmed the judgment of the district court, but assumed that Nogueira would have been allowed to prosecute his claim under the Federal employers' liability act if the longshoremen's and harbor workers' compensation act did not apply, but if the latter did apply the remedy under the act was exclusive.

The case was then carried by Nogueira to the United States Supreme Court to review the judgment of the circuit court of appeals. Mr. Chief Justice Hughes delivered the opinion of the court, and after stating the general scheme and purpose of the Federal longshoremen's and harbor workers' compensation act, and after defining the word "employer," held that the definition is "manifestly broad enough to embrace a railroad company, provided it has employees who are employed in maritime employment, in whole or in part, upon the navigable waters of the United States."

In reviewing the judgment of the lower court, Mr. Chief Justice Hughes referred to several former cases decided by the court. In *Atlantic Transport Co. v. Imbrovek* (234 U. S. 52) a stevedore was loading a ship lying in port in navigable waters, and the court held that there was no doubt "that he was performing a maritime service and that the rights and liabilities of the parties were matters within the admiralty jurisdiction." Also in the case of *Southern Pacific Co. v. Jensen* (244 U. S. 205) it was held that the case was not within the Federal employers' liability act, as the ship upon which the employee was injured could not properly be regarded "as a part of the railroad's extension or equipment."

From the standpoint of maritime employment, the court said that it made no difference "whether the freight is placed in the hold or on the deck of a vessel, or whether the vessel is a car float or a steamship." A car float in navigable waters, the court said, "is subject to the maritime law like any other vessel."

The court then considered the exceptions contained in section 3 of the longshoremen's act and held that the case did not come within any of these exceptions of the act. Their limited character, the court said, "is significant." "No exception is made of the employees of a railroad company employed in maritime service on the navigable waters of the United States or with respect to the question whether such employment was in connection with an extension of railroad transportation."

The Supreme Court, in concluding the opinion, reviewed the history of the longshoremen's and harbor workers' compensation law while it

was pending in Congress, and affirmed the judgment of the lower courts, holding that a railroad freight handler injured on a railroad car float in any of the navigable waters of the United States must seek relief under the Federal longshoremen's and harbor workers' compensation act and not under the Federal employers' liability act.

Employee Injured While Repairing Vessel Held Subject to Federal Longshoremen's Compensation Act

ANOTHER interesting case recently decided by the United States Supreme Court was that of John Baizley Iron Works et al. v. Span (50 Sup. Ct. Rep. 306). In this case Abraham Span, an employee of the John Baizley Iron Works of Philadelphia was injured while working on board the ship *Bald Hill*, tied up at a pier in the Delaware River at Philadelphia. Span had gone on board the ship to paint angle irons and do some repair work in the engine room of the vessel, and while so employed sparks from an acetylene torch used by a fellow employee struck his eyes, causing serious injuries. A compensation claim was filed by Span with the Pennsylvania Workmen's Compensation Board, and upon a hearing before a referee an award was granted. The employer appealed the award and judgment successively to the State compensation board, the court of common pleas, the superior court, and the State supreme court, the award in each appeal being upheld.

Span, in upholding his claim to compensation under the State act, contended that he was doing work of a nature which had no relation to navigation or commerce. The Pennsylvania Supreme Court declared that the insurance carrier could be held only to such liabilities as may be imposed on the employer, and held that when Span was injured he "was doing work of a nature which had no direct relation to navigation or commerce."

The employer thereupon carried the case to the United States Supreme Court, which court did not concur in the view expressed by the Pennsylvania Supreme Court, and in a divided opinion held that the work which Span was performing was directly related to navigation and commerce. Mr. Justice McReynolds, in delivering the opinion of the court, said in part that—

The *Bald Hill* had steamed to Philadelphia for necessary repairs. She was a completed vessel, lying in navigable waters; the employer, iron works, was engaged in making repairs upon her, painting the engine room and repairing the floor; the claimant went aboard in the course of his employment and was there engaged about the master's business when hurt. Obviously, considering what we have often said, unless the State workmen's compensation act (Pa. St. 1920, sec. 21916 et seq.) changed or modified the rules of the general maritime law, the rights and liabilities of both the employer and the employee in respect of the latter's injuries were fixed by those rules, and any cause arising out of them was within the admiralty jurisdiction.

The judgment of the State court was therefore reversed.

Mr. Justice Stone filed a dissenting opinion which was concurred in by Mr. Justice Holmes and Mr. Justice Brandeis. The dissenting opinion was based on the authority of *Rosengrant v. Havard* (273 U. S. 664).

Queensland's Industrial Conciliation and Arbitration Act

A NEW industrial conciliation and arbitration act in Queensland, passed in December, 1929, became effective January 23, 1930. A summary of the law is given in the Australian Legislative Digest for 1929, and the regulations promulgated for its workings are given in the Queensland Industrial Gazette for February 24, 1930. The act abolishes the Board of Trade and Arbitration, and substitutes an industrial court, presided over by a judge who must have the qualifications of a judge of the supreme court. Provision is made for the appointment of an actuary and statistician to aid the court, and particularly to give advice as to the probable economic effect upon trade of any award. The court may also appoint two assessors, one nominated by the employers and the other by the employees, to assist in any case.

The act provides for the appointment of two conciliation commissioners and the setting up of conciliation boards for any one or more of the callings to which the act applies. Each board is to be presided over by one of the conciliation commissioners and is to consist of representatives in equal number of the employers and the employees; a majority vote is sufficient for a decision, and in case of a tie the commissioner may cast the deciding vote, if both parties so request.

The industrial court is not to take a case until the conciliation machinery has proved unavailing. If a board finds itself unable to come to an agreement on a case within three months from the time of its first submission, the commissioner may refer the matter to the industrial court, which thereupon has exclusive jurisdiction, and its decision is final. It also has duties apart from actual disputes.

The court may, from time to time, make declarations as to cost of living, standard of living, minimum rates of wages, etc., and will be required to make declarations as to basic wages and standard hours. Any proceedings for recovery or enforcement of penalties, or for arrears of wages under an industrial agreement may be referred by court to an industrial magistrate. Appeals from decisions of industrial magistrates will lie to court. Jurisdiction of court in all industrial causes will be exclusive and its decisions final.

LABOR TURNOVER

Labor Turnover in American Factories in June, 1930

THE Bureau of Labor Statistics presents below the labor turnover indexes for the month of June for manufacturing as a whole and for eight separate industries. The indexes for manufacturing as a whole are made up from reports received from representative plants employing nearly 1,500,000 people in over 75 different industries. The number of firms reporting to the bureau in the eight industries for which separate indexes are shown employ at least 25 per cent of the wage earners in such industries, as shown by the Census of Manufactures of 1927.

TABLE 1.—AVERAGE LABOR TURNOVER RATES IN SELECTED FACTORIES IN 75 INDUSTRIES¹

[The rate is per 100 employees on the pay roll. The monthly rate is the rate for the calendar month. The equivalent annual rate is the rate for the month expressed as an annual rate]

A.—Monthly Rates

Month	Separation rates								Accession rate		Net turnover rate ³	
	Quit		Lay-off		Discharge		Total ²					
	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930	1929	1930
January.....	2.26	1.11	0.35	1.04	0.45	0.24	3.06	2.39	4.98	2.01	3.06	2.01
February.....	2.28	1.23	.36	1.06	.46	.25	3.20	2.53	4.36	2.06	3.20	2.06
March.....	3.12	1.38	.48	1.03	.57	.30	4.17	2.71	5.20	1.95	4.17	1.95
April.....	3.56	1.45	.45	1.16	.57	.27	4.58	2.88	5.77	2.00	4.58	2.00
May.....	3.46	1.50	.48	1.18	.48	.26	4.42	2.94	5.09	2.10	4.42	2.10
June.....	3.25	1.22	.44	1.12	.51	.20	4.20	2.54	5.01	1.62	4.20	1.62
July.....	3.03	.....	.42	.....	.49	.....	3.94	.....	5.21	.....	3.94	.....
August.....	3.26	.....	.41	.....	.45	.....	4.12	.....	4.61	.....	4.12	.....
September.....	3.14	.....	.52	.....	.50	.....	4.16	.....	4.91	.....	4.16	.....
October.....	2.42	.....	.80	.....	.40	.....	3.62	.....	3.91	.....	3.62	.....
November.....	1.59	.....	1.26	.....	.30	.....	3.15	.....	1.95	.....	1.95	.....
December.....	1.08	.....	1.21	.....	.20	.....	2.49	.....	1.24	.....	1.24	.....
Average.....	2.71	.....	.60	.....	.45	.....	3.76	.....	4.35	.....	3.76	.....

B.—Equivalent Annual Rates

January.....	26.7	13.1	4.2	12.2	5.3	2.8	36.2	28.1	58.6	23.7	36.2	23.7
February.....	31.0	16.0	4.7	13.8	6.0	3.2	41.7	33.0	56.9	26.9	41.7	26.9
March.....	36.8	16.3	5.7	12.1	6.7	3.5	49.2	31.9	61.2	23.0	49.2	23.0
April.....	43.3	17.7	5.5	14.1	6.9	3.3	55.7	35.1	70.2	24.3	55.7	24.3
May.....	40.8	17.7	5.7	13.9	5.6	3.1	52.1	34.7	59.9	24.7	52.1	24.7
June.....	39.5	14.8	5.4	13.6	6.2	2.4	51.1	30.8	60.9	19.7	51.1	19.7
July.....	35.7	.....	5.0	.....	5.8	.....	46.5	.....	61.4	.....	46.5	.....
August.....	38.4	.....	4.8	.....	5.3	.....	48.5	.....	54.3	.....	48.5	.....
September.....	38.2	.....	6.3	.....	6.1	.....	50.6	.....	59.7	.....	50.6	.....
October.....	28.5	.....	9.4	.....	4.7	.....	42.8	.....	46.0	.....	42.8	.....
November.....	19.4	.....	15.3	.....	3.7	.....	38.4	.....	23.7	.....	23.7	.....
December.....	12.7	.....	14.2	.....	2.4	.....	29.3	.....	14.6	.....	14.6	.....
Average.....	32.6	.....	7.2	.....	5.4	.....	45.2	.....	52.3	.....	45.2	.....

¹ The form of average used is the unweighted median of company rates.

² Arithmetic sum of quit, lay-off, and discharge rates.

³ The net turnover rate is the accession rate when it is lower than the separation rate, and the separation rate when it is lower than the accession rate.

The form of average used in the following tables is the unweighted median of company rates. In determining a median rate the rates for the several establishments are arranged in order, from lowest to highest. The rate falling in the center of this arrangement of rates is the median. In other words, it is a rate which has as many establishment's rates above as below. Since it is an unweighted form of average, the size of the different establishments reporting is not considered, nor are the deviations from the median. The number of employees used is the average number on the pay roll during the period.

Table 1 shows for all industries the separation rate subdivided into the quit, discharge, and lay-off rates, together with the accession rate, all expressed on both a monthly and an equivalent annual basis. It will be noticed that in addition to the several separation rates and the accession rate the bureau also shows a net turnover rate. The net turnover rate means the rate of replacement of employees in a plant; it is the number of positions that are vacated and filled per 100 employees. The net turnover rate is the same as the separation rate in a plant that is increasing its number of workers. On the other hand, the net turnover rate is the same as the accession rate when a plant is reducing its force.

Comparing June with May, 1930, it will be noted that the quit, lay-off, discharge, and accession rates are all lower for June than for May. The total separation rate for June was 2.54, while the accession rate was 1.62. Comparing June, 1930, with June, 1929, it is found that the June, 1930, quit rate is less than half that of the June, 1929, quit rate. In contrast, the lay-off rate is over two and one-half times as high in June, 1930, as it was in June, 1929. The June, 1930, discharge rate is also less than half that of the June, 1929, discharge rate. The accession rate for June, 1929, was 5.01 and for June, 1930, 1.62.

Table 2 shows the quit, discharge, lay-off, accession, and net turnover rates for automobiles, boots and shoes, cotton manufacturing, iron and steel, sawmills, and slaughtering and meat packing for the months of January to June, inclusive; foundry and machine shops for the months February to June, inclusive; and for the furniture industry for April, May, and June expressed both on a monthly and on an equivalent annual basis.

LABOR TURNOVER

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TABLE 2.—AVERAGE LABOR TURNOVER RATES IN AUTOMOBILES, BOOTS AND SHOES, COTTON MANUFACTURING, FURNITURE, FOUNDRIES AND MACHINE SHOPS, IRON AND STEEL, SAWMILLS, AND SLAUGHTERING AND MEAT PACKING

[The rate is per 100 employees on the pay roll The monthly rate is the rate for the calendar month, the equivalent annual rate is the rate for the month expressed as an annual rate]

Industry, year and month, 1930	Separation rates								Accession rate		Net turn- over rate ¹	
	Quits		Discharges		Lay-offs		Total					
	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual	Monthly	Equivalent annual
Automobiles:												
January.....	1.27	15.0	0.59	7.0	2.22	26.2	4.08	48.2	8.20	96.9	4.08	48.2
February.....	1.10	14.3	.15	1.9	1.86	24.3	3.11	40.5	3.40	44.3	3.11	40.5
March.....	1.56	18.4	.42	4.9	1.95	23.0	3.93	46.3	5.31	62.6	3.93	46.3
April.....	1.84	22.4	.33	4.0	2.70	32.8	4.87	59.2	4.06	49.4	4.06	49.4
May.....	1.39	16.4	.27	3.2	3.68	43.3	5.34	62.9	2.74	32.3	2.74	32.3
June.....	1.17	14.2	.25	3.0	3.82	46.5	5.24	63.7	1.91	23.2	1.91	23.2
Boots and shoes:												
January.....	1.51	17.8	.46	5.4	.28	3.3	2.25	26.5	5.26	61.9	2.25	26.5
February.....	1.23	16.0	.39	5.1	.72	9.4	2.34	30.5	2.06	26.9	2.06	26.9
March.....	1.56	18.4	.36	4.2	.44	5.2	2.36	27.8	2.79	27.8	2.36	27.8
April.....	1.73	21.1	.32	3.9	1.01	12.3	3.06	37.3	2.11	25.7	2.11	25.7
May.....	1.45	17.1	.25	2.9	.71	8.4	2.41	28.4	2.16	25.4	2.16	25.4
June.....	1.25	15.2	.32	3.9	.87	10.6	2.44	29.7	2.17	26.4	2.17	26.4
Cotton manufacturing:												
January.....	1.20	14.2	.11	1.3	.29	3.4	1.60	18.9	2.40	28.3	1.60	18.9
February.....	1.20	15.6	.19	2.5	.14	1.8	1.53	19.9	1.62	21.1	1.53	19.9
March.....	1.59	18.7	.28	3.3	.25	2.9	2.12	24.9	2.53	29.8	2.12	24.9
April.....	1.34	16.3	.09	1.1	.14	5.4	1.87	22.8	2.34	28.5	1.87	22.8
May.....	1.40	16.5	.20	2.3	.59	6.9	2.19	25.7	2.25	26.5	2.19	25.7
June.....	1.04	12.6	.16	1.9	.90	11.0	2.10	25.5	1.75	21.3	1.75	21.3
Foundries and machine shops:												
February.....	.77	10.1	.05	.7	.80	10.4	1.62	21.2	2.26	29.5	1.62	21.2
March.....	1.12	13.2	.16	1.9	1.21	14.2	2.49	29.3	2.33	27.4	2.33	27.4
April.....	1.26	15.3	.09	1.1	1.12	13.6	2.47	30.0	2.42	29.5	2.42	29.5
May.....	1.23	14.5	.25	2.9	1.88	22.1	3.36	39.5	1.83	21.6	1.83	21.6
June.....	.76	9.3	.15	1.8	1.99	24.2	2.90	35.3	1.30	15.8	1.30	15.8
Furniture:												
April.....	1.22	14.8	.10	1.2	1.29	15.7	2.61	31.7	1.33	16.2	1.33	16.2
May.....	.76	8.9	.23	2.7	2.01	23.7	3.00	35.3	1.15	13.5	1.15	13.5
June.....	.39	4.7	.13	1.6	2.38	28.9	2.90	35.2	1.07	13.0	1.07	13.0
Iron and steel:												
January.....	1.37	16.1	.23	2.8	1.63	19.2	3.23	38.1	3.87	45.6	3.23	38.1
February.....	1.07	14.0	.18	2.4	.74	9.7	1.99	26.1	2.97	38.7	1.99	26.1
March.....	1.35	15.9	.20	2.3	.45	5.3	2.00	23.5	2.54	29.9	2.00	23.5
April.....	1.51	18.4	.19	2.3	.30	3.7	2.00	24.4	2.43	29.6	2.00	24.4
May.....	1.40	16.5	.17	2.0	.87	10.3	2.44	28.8	2.06	24.3	2.06	24.3
June.....	1.36	16.6	.23	2.8	.64	7.8	2.23	27.2	2.38	28.9	2.23	27.2
Sawmills:												
January.....	1.57	18.5	.44	5.2	1.77	20.9	3.78	44.6	2.54	29.9	2.54	29.9
February.....	1.77	23.1	.18	2.4	1.81	23.6	3.76	49.1	4.38	57.1	3.76	49.1
March.....	1.90	22.4	.11	1.3	1.10	13.0	3.11	36.7	4.86	57.2	3.11	36.7
April.....	1.62	19.7	.19	2.3	1.21	14.7	3.02	36.7	4.46	54.3	3.02	36.7
May.....	1.33	15.7	.11	1.3	1.46	17.2	2.90	34.2	3.48	41.0	2.90	34.2
June.....	1.10	13.4	.23	2.8	2.16	26.3	3.49	42.5	2.78	33.8	2.78	33.8
Slaughtering and meat packing:												
January.....	1.60	18.9	.51	6.0	1.52	17.9	3.63	42.8	4.08	48.1	3.63	42.8
February.....	1.54	20.1	.45	5.9	4.33	56.5	6.32	82.5	2.92	38.1	2.92	38.1
March.....	1.89	22.3	.48	5.6	2.62	30.9	4.99	58.8	2.84	33.5	2.84	33.5
April.....	1.90	23.1	.46	5.6	1.91	23.3	4.27	52.0	4.28	52.1	4.27	52.0
May.....	2.38	28.0	.54	6.4	1.52	17.9	4.44	52.3	6.10	71.9	4.44	52.3
June.....	2.12	25.8	.44	5.3	1.13	13.7	3.69	44.8	6.12	74.4	3.69	44.8

¹ The net turnover rate is the separation rate when this rate is lower than the accession rate, and the accession rate when it is lower than the separation rate.

The accession rate for automobiles was 1.91 compared with a total separation rate of 5.24. The quit, discharge, and accession rates were all lower in the automotive industry in June than in May. The lay-off rate, however, was higher in June than May.

The boot and shoe industry also had a lower accession rate than separation rate. The accession rate was 2.17 while the total separation rate was 2.44. The quit rate was lower in June than in May in this industry, while the discharge, lay-off, and accession rates were all higher in June than in the previous month.

The total separation rate for the cotton manufacturing industry was 2.10 compared with an accession rate of 1.75. The quit, discharge, and accession rates in this industry were lower in June than for May. In contrast, the lay-off rate was over 50 per cent higher in June than in May.

The foundry and machine-shop industry had a separation rate of 2.90 in June, 1930, compared with an accession rate of 1.30. The June quit, discharge, and accession rates were all lower than the like rates for May, while the lay-off rate was higher in June than in May.

The total separation rate in the furniture industry was 2.90 while the accession rate was 1.07. Comparing the June rates with the May rates we find that quit, discharge, and accession rates were all lower and the lay-off rate was higher.

The iron and steel industry had a higher accession rate than a separation rate. The June accession rate was 2.38, the total separation rate for that month being only 2.23. The quit and lay-off rates for June were lower than for May, while the discharge and accession rates were higher.

In the sawmill industry the total separation rate was 3.49 and the accession rate was 2.78. The quit rate and the accession rate were lower in June than in May, while the discharge and lay-off rates were higher.

Slaughtering and meat packing was the second industry that had a higher accession than total separation rate during this month. The June accession rate was 6.12, while the total separation rate was only 3.69. The quit, discharge, and lay-off rates were all lower for June than for May, while the accession rate was higher.

The all-industry quit rate was 1.22. Of the industries for which separate indexes are shown, automobiles, cotton manufacturing, foundries and machine shops, furniture, and sawmills had a lower quit rate than the all-industry quit rate, while boots and shoes, iron and steel, and slaughtering and meat packing had a higher quit rate than that shown by industry as a whole. The discharge rate in the automotive industry, boot and shoe industry, iron and steel industry, sawmills, and slaughtering and meat packing were higher than the all-industry discharge rate. Cotton manufacturing, foundry and machine shops, and furniture had a lower discharge rate than industry as a whole. The lay-off rate for automobiles, foundry and machine shops, furniture, sawmills, and slaughtering and meat packing was higher than for the average rate for all industries, while boots and shoes, cotton manufacturing, and iron and steel had a lower than average lay-off rate. The all-industry accession rate was exceeded by that for automobiles, boots and shoes, cotton manufacturing, iron and steel, sawmills, and slaughtering and meat packing.

The accession rate in foundries and machine shops and in furniture was lower than that for all industries.

The highest quit rate was shown in the slaughtering and meat-packing industry, where the June quit rate was 2.12; the lowest, 0.39, was shown in the furniture industry. The highest discharge rate, 0.44, also appeared in the slaughtering and meat-packing industry, while the lowest, 0.13, was shown by furniture. Automobiles, with a lay-off rate of 3.82, laid off men at a higher ratio than any of the other industries. The lowest lay-off rate, 0.64, was shown by the iron and steel industry. The highest accession rate, 6.12, was shown in the slaughtering and meat-packing industry, while the lowest, 1.07, occurred in furniture manufacturing.

COOPERATION

Legislation Relating to Consumers' Cooperative Societies

CONSIDERABLE amendment has been made in the past 10 years in the legislation relating to consumers' cooperative societies. The present article endeavors to present a picture of the laws governing such societies, as of June, 1930.

Perhaps the most extensive amendments have been made in the laws of Oregon and Wisconsin, but many changes have also been made in those of Connecticut, Minnesota, Missouri, New York, and South Dakota. Arkansas passed an entirely new act in 1921, while in the same year the North Dakota statute (which had previously been much amended) was again amended and the whole was re-enacted.

There are now on the statute books consumers' cooperative laws¹ of varying completeness in 34 States and Alaska.² In Alabama, New York, and Washington, there are separate enactments for associations organized with capital stock and those without it. The most complete laws are those of Illinois, Iowa, Minnesota, Missouri, New York, North Dakota, Oregon, and Wisconsin. The briefest are those of Ohio (which consists of two short sections permitting the formation of "trading associations dealing in articles of merchandise" and authorizing the distribution of earnings in proportion to purchases), Tennessee (three sections, permitting associations to buy or sell agricultural products and merchandise and setting the number necessary for incorporation), and Vermont (one section, setting up a definition and standards to be followed).

It may be said that the amendments made in the past 10 years have been almost entirely in the direction of liberalizing the laws, widening the fields of business which may be entered, enlarging the powers of the associations organized under them, and raising the requirements or standards from the cooperative point of view.

¹Some of these, however, also cover agricultural marketing associations.

²Alabama (stock—Code, 1923, secs. 7047-7056; nonstock—Code, 1923, secs. 7057-7061); Alaska (Acts of 1917, ch. 26); Arkansas (Acts of 1921, No. 632); California (Civil Code, 1906, sec. 653a-1, as amended by Acts of 1921, ch. 170); Colorado (Comp. Laws, 1921, secs. 2413-2417); Connecticut (Gen'l Stats., 1918, secs. 3600-3609, as amended by Acts of 1919, ch. 96; Acts of 1921, ch. 115; Acts of 1923, ch. 110; and Acts of 1925, ch. 227); Florida (Comp. Gen'l Laws, 1927, secs. 6385-6390); Illinois (Rev. Stats., 1917, ch. 32, secs. 103-128, 233-259, as amended by Acts of 1917, pp. 303, 304); Indiana (Burns' Ann. Stats., 1914, sec. 4359a-4359e); Iowa (Code of 1927, ch. 389, as amended by Acts of 1929, chs. 15, 18, 398); Kansas (Rev. Stats., 1923, secs. 17-1501 to 17-1515); Kentucky (Carroll's Kentucky Stats. (Baldwin's Rev.), 1930, secs. 883d-1 to 883d-9); Massachusetts (Gen'l Laws, 1921, ch. 157); Michigan (Comp. Laws, 1922, ch. 175, secs. 9053 (78)-9053 (96)); Minnesota (Gen'l Stats., 1923, ch. 58, secs. 7822-7847); Missouri (Rev. Stats., 1919, secs. 10247-10262, as amended by Acts of 1919, p. 270; Acts of 1925, p. 145; Acts of 1929, p. 334); Montana (Rev. Codes, 1921, ch. 25, secs. 6375-6396); Nebraska (Comp. Stats., 1922, secs. 642-648, as amended by Acts of 1925, ch. 79); Nevada (Rev. Laws, 1912, secs. 1249-1260); New Jersey (Comp. Stats., 1910, pp. 1580-1584); New York (stock—Acts of 1913, ch. 454, as amended by Acts of 1920, chs. 104 and 591; Acts of 1921, ch. 359; Acts of 1926, ch. 231, art. 7; nonstock—Acts of 1920, ch. 166, art. 21, as amended by Acts of 1926, ch. 231, art. 5); North Carolina (Consol. Stats., 1919, secs. 5242-5259); North Dakota (Acts of 1921, ch. 43); Ohio (Gen'l Code, 1910, secs. 10185, 10186); Oklahoma (Comp. Stats., 1921, secs. 5637-5652); Oregon (Olson's Ore. Laws, 1920, secs. 6954-6981, as amended by Acts of 1929, ch. 412); Pennsylvania (Stats., 1920, secs. 5520-5542, as amended by Acts of 1923, No. 404; Acts of 1929, Nos. 211, 215); South Carolina (Civil Code, 1922, secs. 4331-4343); South Dakota (Rev. Code, 1919, secs. 8830-8853, as amended by Acts of 1919, ch. 140; Acts of 1921, ch. 153; Acts of 1923, chs. 127 and 131; Acts of 1929, ch. 89); Tennessee (Thompson's Shannon's Code, 1919, secs. 2186-2188); Vermont (Gen'l Laws, 1917, title 25, sec. 4897, as amended by Acts of 1929, No. 81); Virginia (Ann. Code, 1919, sec. 3855, as amended by Acts of 1928, ch. 166); Washington (stock—Acts of 1913, ch. 19, as amended by Acts of 1925, ch. 99; nonstock—Remington & Ballinger's Code, secs. 3752-3764); Wisconsin (Wisconsin Stats., 1923, secs. 185.01-185.23, as amended by Acts of 1925, ch. 181; Acts of 1928, 1929, ch. 527); and Wyoming (Comp. Stats., 1920, secs. 5119-5134).

The laws of 24 States now contain provisions as to the distribution of earnings, and these provisions always include the payment of patronage dividends. Only eight States³ leave the distribution of earnings to be determined by the association in its by-laws, but of these the laws of Florida, Indiana, and Kansas set up a cooperative standard (in defining a "cooperative association" within the meaning of the act) which must be met by all associations organized under the act, and which always includes the payment of dividends on the basis of patronage. The laws of five States (Alabama, Arkansas, Colorado, New York (nonstock), and Washington) are silent as to distribution of earnings, but in those of Arkansas and Colorado the association must conform to the cooperative standard of the act. Thus it may be said that the most characteristic feature of cooperative associations—distribution of the earnings of the association on the basis of patronage and not on capital invested—is now provided for in more than 80 per cent of the laws.

An increasing number of laws are recognizing the value of the teaching of the principles of cooperation and are making provision for the appropriation, from the societies' net earnings, of a certain proportion (generally 5 per cent) for this purpose. In only five States, however, has this provision as yet been made mandatory.

In 1929 the former Pennsylvania provision prohibiting an association from either giving credit or taking it was repealed.

Provisions unusual, but in the direction of cooperative progress, are that of Wisconsin allowing the stockholders, at their option, either to return all of the net earnings to the patrons or to use them "for the general welfare of the members of the association"; that of Oklahoma and Wyoming holding the directors liable in case they distribute dividends when the association is bankrupt or on the verge of insolvency; the Missouri law requiring that the books of the association be audited once a year by a "competent auditor" who is not a member of the association; and two Wisconsin provisions, one of which permits a consumers' association to enter into contracts binding the member to purchase all of his goods through it or through facilities created by it, and the other of which forbids discrimination by other business organizations against cooperative societies on pain of forfeiture of charter or license to do business.

A few of the changes in the cooperative laws seem to be of rather dubious value from the cooperative standpoint, as, for instance, the amendment of the New York and Oregon laws so as to permit the appointment of persons not connected with the association to serve as secretary and treasurer, and in the latter State to permit the directors to reside and hold meetings outside the State. Other provisions in this class are that of Montana allowing the society to put the value of its shares as high as \$5,000 (though it is specified that they may be paid for in installments); the Missouri provision allowing each member, in the election of the directors, to cast as many votes as he has shares, multiplied by the number of directors to be elected; and the South Dakota provision specifying that in associations with capital of more than \$500,000 voting shall be by shares.

³ California, Connecticut, Florida, Indiana, Kansas, Nevada, New Jersey, and Ohio.

Definition of "Cooperative Association"

THE laws of 11 States contain some definition of what shall constitute a "cooperative association" within the meaning of the act. Those of Arkansas, Kansas, and Kentucky define such an association as one which distributes its earnings by a fixed return on capital and pro rata dividends on patronage, while the Wisconsin law adds to this definition the requirement of one vote per member. The laws of Colorado, Florida, Indiana, Michigan, Nebraska, and North Dakota define a cooperative association as one which distributes its earnings wholly or in part on the basis of patronage or of services performed for the association. The New York (stock) law considers as a cooperative organization one conducted "primarily for the mutual help and benefit of its shareholders, employees, and patrons, without profit, which pays not to exceed 6 per cent on capital and distributes the remainder on the basis of patronage or of labor performed for the society."

Kind of Business Permitted

THE cooperative laws of eight States ⁴ give cooperative associations formed under them blanket authority to carry on "any lawful business," that of Kansas permits any business or industrial pursuit, while that of Vermont permits any business "not repugnant to the laws of the State." The law of Missouri covers any agricultural or mercantile business, while that of Massachusetts adds dairies to these two fields of business. The Ohio law (perhaps the briefest cooperative enactment) authorizes the formation only of trading associations dealing in articles of merchandise, while that of Tennessee adds to this the right to buy and sell agricultural products. Seven States ⁵ permit any agricultural, dairy, mercantile, mining, manufacturing, or mechanical business, while to this list Arkansas adds banking, Minnesota adds marketing, warehousing, commission business, building, telephone, and the supply of electricity, heat, light, or power, and North Dakota adds grain elevators and the telephone business. Virginia substitutes brokerage for mining in the above list, while Oklahoma and Wyoming substitute livestock, irrigation, horticultural, and industrial businesses for mining.

The law of Alabama allows the carrying on by cooperative societies of any mutual aid, benefit, or industrial business; the law of Alaska permits any lawful mercantile, manufacturing, agricultural, or other industrial pursuit; that of Connecticut, trade or any lawful mercantile, mechanical, manufacturing or agricultural business, and that of Illinois, any general mercantile, manufacturing, or producing business. The Montana law permits a cooperative association to carry on trade or any branch of industry, and the purchase or distribution of commodities for consumption, and even to borrow or lend money for industrial purposes. The New Jersey law permits the operation of mechanical, mining, manufacturing, or trading businesses.

The most detailed laws in this respect are those of New York and Pennsylvania. The New York law relating to cooperative associa-

⁴ California, Colorado, Florida, Indiana, Michigan, Nebraska, Nevada, and Oregon.

⁵ Iowa, Kentucky, North Carolina, South Carolina, South Dakota, Washington (stock), and Wisconsin.

tions with capital stock gives them the right to carry on any general producing, manufacturing, warehousing, merchandising, or processing and cleansing business in articles of common use, including farm products, food supplies, farm machinery and supplies, and articles of personal and domestic use; buying, selling, or leasing homes or farms for members; or building or conducting housing or eating places. The nonstock law of the same State permits the purchase, manufacture, preservation, drying, canning, storing, handling, and utilization of agriculture, dairy, horticultural, or other food products, family or other household supplies to be consumed by the families or guests of the members or any other household operation; the performance of services connected with the purchase or hiring of supplies, machinery, or equipment; or educational work in home economics or mutual help in educational work. The Pennsylvania law permits the operation of any agricultural, horticultural, mining, quarrying, building, mechanical, or manufacturing business; cultivating, raising, trading or dealing in all kinds of goods or produce, or of livestock; or the holding, leasing, or improving land, tenements, or buildings.

Number Who May Organize

IN FOUR States ⁶ only three persons are necessary for the incorporation of a cooperative society, but the Vermont act requires that they must be adults and Kentucky that they must be residents of the State. The Montana act specifies not less than three nor more than seven persons. In 17 States ⁷ five persons are required for incorporation (of whom a majority must be residents, in Alaska). Seven persons are required in Connecticut, Massachusetts, New Jersey, and Tennessee, 10 in Colorado, Florida, and Oklahoma, 12 in Missouri, 15 in Alabama (nonstock associations, a majority of incorporators must be residents of State) and North Dakota, 20 in Arkansas, Kansas (all citizens), and Nebraska, and 25 in Indiana. The Ohio act contains no provision on the subject.

Management

Directors.—The great majority of the laws specify that the cooperative association shall have not less than five directors, those of 18 States ⁸ having this provision. The number may not be less than three in Kentucky, Montana, Vermont, Washington (stock), and Wyoming, not less than 5 nor more than 9 in South Carolina, and not less than 7 nor more than 9 in Alabama (nonstock). The Pennsylvania law sets the number of directors at 6, 8, or 10; the matter is left to the association to fix, in its by-laws, in Nevada, New York (nonstock associations only), and Washington (nonstock), while the acts of nine States ⁹ contain no provision on the subject. The Oregon law prohibits any director from occupying a salaried position in the association or to be a party to any contract with the association which will yield him a profit.

⁶ Kentucky, Michigan, New York (stock), and Vermont.

⁷ Alabama (stock), Alaska, California, Illinois, Iowa, Minnesota, Nevada, New York (nonstock), North Carolina, Oregon, Pennsylvania, South Carolina, South Dakota, Virginia, Washington, Wisconsin, and Wyoming.

⁸ Alabama (stock), Alaska, Arkansas, Connecticut, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, New Jersey, New York (stock), North Carolina, North Dakota, Oklahoma, Oregon, South Dakota and Wisconsin.

⁹ California, Colorado, Florida, Indiana, Massachusetts, Nebraska, Ohio, Tennessee, and Virginia.

Officers.—Practically all of the laws which have any provision as regards officers specify that they shall consist of a president, one or more vice presidents, secretary, and treasurer (the last two of which may be combined).¹⁰ Of these acts, those of 12 States¹¹ require that the officers shall be elected by the directors from their own number. The Kansas and New Jersey acts except the secretary from this provision, and those of Missouri, New York (stock), and Wisconsin except both secretary and treasurer. The Oregon and New York laws differ from all the others in this respect. The New York law relating to stock associations specifies that the secretary and treasurer need not even be stockholders in the organization, while the Oregon law gives the directors permission to engage as secretary and treasurer any persons considered capable of rendering the most efficient service.

Term of office.—Most of the laws leave the term of office of directors to be determined by the association in its by-laws. Those of Alabama (nonstock), Alaska, Connecticut, New Jersey, Oklahoma, Pennsylvania, Vermont, and Wyoming, however, provide that they shall be elected for one year, that of Oregon for not more than two years, that of New York (nonstock) for three years, and that of South Dakota for not more than three years.

The laws of 13 States¹² provide for one-year terms for the officers. The remaining laws are silent on this point.

Capital Stock

ALL OF the laws except those of California and Nevada provide for associations with capital stock. Alabama, New York, and Washington have two cooperative laws each—one relating to associations with capital stock, and the other to nonstock associations; in the latter type of association the funds are obtained through the sale of membership certificates. The laws of Oregon and Wisconsin offer the association a choice as regards its manner of capitalization, but the same law covers both types of associations. In almost all instances capital stock is all of one class, but the laws of Oregon and Virginia permit the issuance of both preferred and common stock and that of Pennsylvania the issuance of "permanent" stock which is transferable (subject to the by-laws) but not withdrawable and of which each member must purchase at least one share, and "ordinary" stock, which is both transferable and withdrawable in accordance with the by-laws.

Amount.—Generally the cooperative law sets no limit upon the amount for which an association may be capitalized. The act of South Carolina, however, provides that no association may be capitalized at less than \$100, that of Vermont at less than \$500, and that of Alabama at less than \$5,000. The Massachusetts law specifies that the capital stock may not be less than \$100 nor more than \$100,000. Maximum limits of \$100,000 and \$200,000, respectively, are set by the laws of Minnesota and Connecticut.

¹⁰ Alaska, Arkansas, Illinois, Iowa, Kansas, Kentucky, Michigan, Minnesota, Montana, New Jersey, North Carolina, North Dakota, Oregon, South Carolina, South Dakota, Washington, and Wisconsin.

¹¹ Arkansas, Illinois, Iowa, Kentucky, Michigan, Minnesota, New York (stock), North Carolina, North Dakota, South Carolina, South Dakota, and Washington (stock).

¹² Arkansas, Illinois, Iowa, Kansas, Kentucky, Michigan, Minnesota, New York, North Carolina, South Carolina, South Dakota, Washington, and Wisconsin.

The Alabama law requires that \$5,000 in capital must be in hand before the association is allowed to start its business operations, while the acts of Arkansas, Kansas, Minnesota, and Oklahoma require at least 20 per cent and that of Washington (stock) at least 25 per cent of the capital, and that of Wyoming at least 20 per cent of the stock subscribed for. The Oregon law specifies that 60 per cent of the common stock must be subscribed for and 25 per cent paid in before business may be begun.

Value of shares.—Only seven laws place any limit on the value of the individual share, this matter usually being left to the society to determine. Of these seven, however, that of New York specifies that each share shall be not more than \$5 and that of South Carolina not less than \$5, that of Pennsylvania not less than \$5 nor more than \$25, that of Illinois not less than \$5 nor more than \$100, that of New Jersey not more than \$50, and that of Vermont not more than \$100. In Montana shares may be not less than \$10 nor more than \$5,000, each, and may be paid for in installments.

Stock ownership per member.—The maximum amount of stock which any individual member may own in a cooperative association is set by the law of Montana at 1 share, by that of Illinois at 5 shares or not to exceed \$500 in value, by that of Oklahoma at 5 per cent of the stock outstanding, but not to exceed \$500 in value, and by that of Nebraska at 5 per cent of the stock in the case of individuals and 20 per cent in the case of other organizations which are members of the association. No individual member may hold more than 10 per cent of the association's stock in Arkansas, Kansas, Massachusetts, Missouri, and Vermont, or more than 20 per cent in North Carolina, South Carolina, and Washington. The law of Wyoming limits the amount to one-third of the shares outstanding but not to exceed \$1,000 in value, while the sum of \$1,000 is set as a limit by the law of Minnesota (10 per cent of the amount of paid-in capital and permanent surplus, in the case of member associations), Pennsylvania (but this may be increased by vote of the members), and Virginia (in common stock only). The South Dakota law sets the maximum sum at \$1,000 in associations with capital of \$100,000 or less and 1 per cent of the stock in those with capital of more than that amount. The laws of Iowa and New York set the maximum at \$5,000. The other laws contain no provision on this point.

Liability of Members and Directors for Debts of Association

AN INDIVIDUAL member may be held liable for debts of the association only in the amount still unpaid on the capital stock subscribed by him in Arkansas, Illinois, Montana, New Jersey, Oklahoma, Oregon, Washington (stock), and Wyoming. In Pennsylvania, however, he is also liable for the full amount owed by the association on the wages of its employees.

The laws of Iowa and Missouri specifically state that the private property of a member shall be exempt from execution for the debts of the corporation, while in Pennsylvania in case of the private debts of a member who is a householder with a family, \$25 worth of stock is exempt from execution. In Montana the member's stock in the association, up to \$500, is exempt from attachment or sale under execution.

In New York (nonstock) the individual member is liable for whatever amount is specified on the association's certificate of incorporation. In general the liability consists of his per capita share of all "contracts, debts, and engagements" of the society, plus an equal amount in case any other member's liability proves to be uncollectible, plus any further amounts specifically mentioned in the certificate of incorporation.

In Oklahoma the directors are liable for any debts, agreed to by them, in excess of the society's subscribed capital and surplus, and in Wyoming for any amounts in excess of the capital stock.

Voting

THE democratic principle of one man, one vote, regardless of the amount of stock held, is set down as a requirement in the laws of 24 States.¹³ This is a requirement in Missouri, also, in all matters except the election of the directors; in that case each member is entitled to cast as many votes as he holds shares, multiplied by the number of directors to be elected. The Oregon law provides that in an emergency threatening the life of the association, voting may be in proportion to the member's patronage of the association, while that of Virginia allows, as an exception to the general one-vote policy, that the association may specify that stock held by persons who are not members of certain designated nonstock corporations shall have no voting power. The law of South Dakota requires that in associations with capital of more than \$500,000, voting shall be by shares.

Vote by mail or proxy.—Vote by mail by a member unavoidably absent is allowed under the laws of 10 States,¹⁴ provided the absentee has been previously notified in writing of the question to be voted upon and provided he returns with his ballot a copy of the motion upon which he is casting his vote (in Oregon a statement signed by him). The Minnesota act also requires that the vote must be signed and certified by the stockholder. The Michigan law requires that opportunity to vote by mail must be afforded to absent members, while that of New York (nonstock) provides for voting by registered mail on certain specific questions. The California law provides that the conditions of vote by mail or proxy may be determined by the association in its by-laws, but in all cases secrecy of ballot must be maintained. The Alabama (nonstock) law specifically permits votes by mail and by proxy in the election of the directors; in such cases proxies must be filed 30 days before the election. Under the Oklahoma act the association may determine its policy as regards voting by mail and by proxy, but unless these questions are specifically covered in the by-laws both types of voting are prohibited.

Proxies are forbidden by the laws of New Jersey, New York (nonstock), Oregon, Pennsylvania, and Wisconsin. The North Carolina act provides that proxies must be written and that no member may vote more than one.

¹³ Alaska, Arkansas, California, Connecticut, Iowa, Kansas, Kentucky, Massachusetts, Minnesota, Montana, Nevada, New Jersey, New York, North Carolina, North Dakota, Oklahoma, Pennsylvania, South Carolina, South Dakota, Vermont, Virginia, Washington, Wisconsin, and Wyoming.

¹⁴ Illinois, Iowa, Minnesota, New York (stock), North Carolina, North Dakota, Oregon, South Dakota, Washington (stock), and Wisconsin.

Distribution of Earnings

THE laws of 16 States ¹⁵ contain mandatory provisions governing the manner in which the net earnings of the association shall be distributed, while those of 8 others ¹⁶ contain suggested procedure but leave its adoption to the action of the association. In most cases in which the law covers the question of distribution of earnings, the provision for reserves, a fixed return (at a specified rate) on capital, and patronage dividends are most frequently required, but a few also provide for depreciation reserves and 14 States specifically authorize the appropriation of a certain percentage of the profits for a fund to be used for the teaching of the principles of cooperation.

The laws of 13 States ¹⁷ require that the distribution of earnings must take place at least once a year.

Mandatory provisions.—The law of Massachusetts provides that cooperative associations may pay in interest on capital stock not more than 5 per cent, that of Pennsylvania not more than 5 per cent on "ordinary" stock and 6 per cent on "permanent" stock, those of New York (stock) and Vermont not more than 6 per cent, that of Michigan not more than 7 per cent, and those of Alaska, Minnesota, Nebraska, Oregon, and Washington (stock) not more than 8 per cent. The Minnesota law provides that interest shall be paid on capital stock only when the income has been sufficient to pay it, and that such interest shall not be cumulative (in case of failure to pay in previous years); violation of the provisions relating to interest is punishable by cancellation of the society's charter. The Montana law provides for interest at 8 per cent, and that of Missouri at not to exceed 10 per cent. The Illinois law calls for the payment of interest on stock, but sets no limit—either minimum or maximum—on the rate to be paid.

The laws of 13 States require regular appropriations from the net income, to be added to the reserve fund. The accessions to this fund are set at 5 per cent of the net profits in Pennsylvania, Nebraska, and Montana, and at 10 per cent in Alaska and Connecticut. Not less than 10 per cent must be so appropriated in Massachusetts, Missouri, New York, and Vermont. The Oregon law requires that some provision be made for reserves out of each year's net earnings, but does not specify the rate, while in Washington (stock) not less than 10 per cent nor more than 25 per cent must be so appropriated. In South Dakota not less than 25 per cent must be set aside. Some of the laws permit the reduction or discontinuance of the appropriations to the reserve fund when this fund reaches a certain amount, fixed at 20 per cent of the paid-in capital in Nebraska and Connecticut, 30 per cent in Massachusetts, Montana, and New York, and 50 per cent in Missouri, South Dakota, and Vermont. In Minnesota all of the first and second year's earnings may be covered into the reserve fund, and thereafter 10 per cent must be, until the fund amounts to 50 per cent of the paid-in capital.

¹⁵ Alaska, Connecticut, Illinois, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Jersey, New York (stock), Oregon, Pennsylvania, South Dakota, Vermont, and Washington (stock).

¹⁶ Iowa, North Carolina, North Dakota, Oklahoma, South Carolina, Virginia, Wisconsin, and Wyoming.

¹⁷ Alaska, Illinois, Iowa, Massachusetts, Michigan, Missouri, Montana, New York (stock), North Carolina, North Dakota, Vermont, Washington (stock), and Wisconsin.

Only five States require the setting aside of funds to teach cooperation. Of these, the law of Pennsylvania requires 2½ per cent of the net profits, that of South Dakota not less than 1 nor more than 5 per cent, those of Alaska and Montana 5 per cent, and that of Massachusetts not more than 5 per cent.

The law of Minnesota requires that "reasonable and adequate" reserves for depreciation be made, while that of Pennsylvania requires that buildings shall be depreciated at the rate of 2½ per cent and furniture and fixtures at the rate of 10 per cent.

The laws of 12 States¹⁸ require that after provision is made for some or all of the above-mentioned funds (capital, reserve, depreciation, education, etc.), the remainder shall be distributed as dividends. The laws of Massachusetts, Montana, and New York (stock), and Oregon provide that patronage dividends shall be paid to nonmembers as well as to members, and those of Massachusetts, Montana, and Oregon that the nonmember's dividends may be applied on the purchase of a share of stock so that he eventually becomes a member of the association. The Pennsylvania law requires that all patronage dividends be applied on the purchase of stock until each member has to his credit the maximum allowed. The law of Washington (stock) provides that any dividend uncalled for at the end of 6 months, and that of Oregon at the end of one year, shall revert to the association.

Optional provisions.—Subject to revision by the association, the laws of eight States set maximum limits on the rate of interest payable on stock, the limit being 6 per cent in North Carolina and South Carolina, 8 per cent in North Dakota, Oklahoma, Virginia, Wisconsin (may not be cumulative), and Wyoming, and 10 per cent in Iowa.

Likewise subject to the ultimate decision of the stockholders, suggested provision for reserves is given in the laws of nine States.¹⁹ Those of Iowa, North Carolina, South Carolina, Virginia, and Wyoming suggest annual appropriations of not less than 10 per cent, that of North Dakota of not more than 10 per cent, and that of Kentucky of from 10 to 25 per cent.

Provision for an educational fund, at the rate of not less than 2 per cent, is suggested in the law of North Carolina, of 5 per cent in the acts of Iowa, Minnesota, New York (stock), Oklahoma, South Carolina, and Virginia, of not less than 5 per cent in Wisconsin, and of not more than 5 per cent in North Dakota.

Dividends on employees' wages at the same rate as members' patronage dividends are permitted in the laws of Iowa, Massachusetts, New York (stock), North Carolina, North Dakota, South Carolina, Virginia, and Wisconsin.

The Wisconsin law provides that after provision for reserve, depreciation, interest, and education, all or part of the remainder of the net profits may be used "for the general welfare of the members of the association," or in case the stockholders so decide, the whole amount of the net proceeds of the year's business may be returned to the patrons.

The laws of Oklahoma and Wyoming contain the provision that if the directors distribute dividends when the association is insolvent or

¹⁸ Alaska, Illinois, Iowa, Massachusetts, Minnesota, Missouri, Montana, Nebraska, New York, Oregon, Pennsylvania, and Washington.

¹⁹ Iowa, Kentucky, Michigan, North Carolina, North Dakota, Oklahoma, South Carolina, Virginia, and Wyoming.

when such distribution would make it so, they shall be jointly and severally liable for all debts of the association then existing or thereafter incurred during their incumbency; however, any director may relieve himself of this liability by filing with the secretary of the association and with the county clerk his written objection to such payment of dividends.

Purchase of Stock of Other Cooperative Organizations

THE laws of 16 States ²⁰ permit a cooperative society to subscribe for shares (i. e., become a member) of another cooperative organization.

A majority vote of the members is required before the association may purchase stock in another organization, by the laws of Michigan, New York, North Dakota, Pennsylvania, South Carolina, South Dakota, Virginia, Washington, and Wisconsin, by a majority vote of a majority of the members in Iowa, and by a two-thirds vote of two-thirds of the members in Illinois.

Only the surplus may be used for this purpose in Illinois, and only the reserves in Iowa, Michigan, and South Carolina.

The Pennsylvania act puts no limit on the amount of the investment. The amount, however, is limited in Illinois to 25 per cent of the amount of paid-in capital if authorized by a two-thirds vote of the members; the directors may of their own judgment invest an amount not to exceed 10 per cent of the amount of paid-in capital. In Iowa, New York (stock), South Carolina, and South Dakota, the amount may not exceed 25 per cent, in Michigan 20 per cent, and in New Jersey one-third of the paid-up capital. In Oregon the amount so invested may not exceed 20 per cent and in Wisconsin 25 per cent of the paid-in common stock and reserves.

The amount of the other organization's stock that may be purchased is limited in Kansas to 5 per cent of its stock, and in Minnesota to 10 per cent of its capital and permanent surplus.

Annual Reports

ANNUAL reports to some specified State authority are required from cooperative societies in 14 States. Thus the law of Arkansas requires that the report be made to the State Commissioner of Mines, Manufactures, and Agriculture; those of Illinois, Iowa, Kansas, North Dakota, Washington (stock), and Wisconsin to the Secretary of State, and of Connecticut to the Secretary of State and to the clerk of the town in which the association is located; that of Minnesota to the State Commissioner of Agriculture; that of New Jersey to the clerk of the county and to the State Bureau of Statistics of Labor and Industries; that of New York to the State Department of Farms and Markets; that of North Carolina to the Secretary of State and the Division of Markets and Rural Organizations; that of Oregon to the State Corporation Commissioner; and that of South Carolina to the State Commissioner of Agriculture, Commerce, and Industries.

²⁰Arkansas, Illinois, Iowa, Kansas, Michigan, Minnesota, New Jersey, New York, (stock), North Dakota, Oregon, Pennsylvania, South Carolina, South Dakota, Virginia, Washington, and Wisconsin.

In Connecticut failure to make the above report subjects the board of directors, jointly and severally, to liability for all existing debts of the association. In New Jersey failure to report, or the making of any false statement in the report, subjects each director or officer concerned in the making of the report to a fine of \$100, recoverable in an action by any member or creditor of the association. In Wisconsin, where the report is required to be made before April 1 of each year, failure to report before June 1 subjects the association to a fine of \$10 and if the delinquency continues beyond January 1 to the forfeiture of its corporate rights.

Voluntary Dissolution

A SOCIETY may be dissolved on written request of two-thirds of its members in California, Nevada, and Washington (nonstock), by a two-thirds vote in Oregon, and by a majority vote in Pennsylvania and Wisconsin. In New York a two-thirds vote of the stockholders is necessary for dissolution and a duplicate report of the proceedings at the dissolution meeting must be filed in the office in which the articles of incorporation were filed.

Dissolution is automatic in Nebraska whenever the individual membership falls below 20.

The law of Iowa provides that if no dividends are paid for 5 consecutive years, five members may petition for the dissolution of the society. If no interest is paid on stock for five years, dissolution may be granted on petition of a majority of the stockholders in Michigan, of five or more members in Minnesota and New York (stock), and of the holders of a majority of the shares in Montana.

Use of Word "Cooperative" in Name

NO ORGANIZATION may use the word "cooperative" in its name unless it complies with the provisions of the act in Kansas, Massachusetts, Nebraska, Oklahoma, Oregon, South Dakota, Washington (stock), and Wyoming. A 1929 amendment to the Oregon law provides that should the courts uphold the right to the use of the name "cooperative" by organizations formed prior to 1913, then such organizations must insert in the name of the association on letterheads and otherwise, the phrase "does not comply with Oregon cooperative laws," in type at least two-thirds as large as that used in the word "cooperative." In 11 States²¹ the prohibition against the use of "cooperative" is limited to organizations formed after the passage of the act. Violation of this provision subjects the violating organization to injunction, which may be obtained by any member of a cooperative society in Illinois, Iowa, North Carolina, South Carolina, and Virginia; by any member or any cooperative association organized under the law in Kentucky, Missouri, North Dakota, and Washington (stock); and by any citizen in Kansas, Oklahoma, and Wyoming. Penalties are provided for violation in the laws of Kentucky (fine of not less than \$50 nor more than \$1,000), Massachusetts (fine of \$10 per day), Nebraska (fine of not to exceed \$100

²¹ Illinois, Iowa, Kentucky, Minnesota, Missouri, Montana, New York (stock), North Carolina, North Dakota, South Carolina, and Virginia.

per day), Oklahoma and Wyoming (\$100 for each offense), South Dakota (fine of not to exceed \$1,000), and Wisconsin (fine of not more than \$500 or six months' imprisonment or both).

The Montana law also forbids the use of the word "farmer" in the name of the association unless one-half of its members are "farmers by occupation."

Names of Associations Organized Under the Act

ONLY six laws (those of Kansas, Nebraska, New York (nonstock), Pennsylvania, Virginia, and Wisconsin) make any requirements as to the form of names of societies organized under the cooperative law. Of these, that of Kansas requires that the names of such associations must begin with "The" and end with "association," "Co.," "corporation," "exchange," "society," or "union." The Nebraska, Virginia, and Wisconsin acts require that associations formed under the act shall use the word "cooperative" in their name, and that of New York (nonstock) that they shall use the words "cooperative" and "association." That of Pennsylvania requires that the name shall end in "cooperative association"; it is unlawful to use either "society" or "company."

Use of the word "cooperative" in the name of the association is now optional under the Oregon law.

Special Provisions

Auditors.—The Missouri law was amended in 1925 so as to require that the books of every cooperative association organized under the act be audited once a year by "competent auditors," who shall not be members of the association.

Discrimination.—A 1929 amendment to the Wisconsin act provides that any corporation which discriminates against a cooperative society doing business in that State shall have its charter or license to do business revoked.

Contracts.—Contracts whereby the member binds himself to deliver to the cooperative association all of his crops are common among the cooperative marketing associations. The Wisconsin statute, which is applicable to both consumers' and agricultural associations, contains the usual provision upholding the right of the association to make such a contract and its right to an injunction, a decree of specific performance, and liquidated damages. It also adds, however, a phrase which authorizes the adoption of the contract system by consumers' societies, i. e., it makes valid "contracts whereby members bind themselves to * * * buy all of their goods" through the association or the facilities created by it, providing the term of the contract does not exceed five years.

Organization by districts.—The Oregon law, which also covers agricultural marketing associations, provides that if the area covered by the cooperative societies is too large for the convenient assembling of the members, the by-laws may provide for the formation of districts and holding of district meetings and elections. In such cases, districts may elect delegates to represent them at the annual and special meetings of the association. The vote of a delegate shall be considered as the vote of all the members of his district, on matters not covered by ballot submitted to individual members.

Violations of Act

VIOLATIONS of provisions of the cooperative law are misdemeanors and subject to a fine of not less than \$100 nor more than \$1,000 in Montana, and by a fine of not more than \$500 or one year's imprisonment, or both, in New York (stock).

Franklin Cooperative Creamery and Its Activities

THE 1930 Yearbook of the Cooperative League contains an interesting description of the Franklin Cooperative Creamery, Minneapolis, Minn., an organization started in 1919 by a few striking milk-wagon drivers whose only previous business experience "consisted mostly in getting up early in the morning to pilot one or two horses, deliver milk, and collect the cash." One or two also knew how to pasteurize milk and make butter. Many obstacles and discouragements were encountered at first, but these were overcome and the record of the society has been one of steady progress and expanding scope.

On the first morning of operation 18 wagons left the plant for the delivery of milk and other dairy products. The rapid increase in business led to the establishment of a branch distributing station in another section of the city, and 20 wagons were soon operating from this station. This also proving inadequate, the company built a second plant (now its headquarters) in 1922. The company now operates 165 milk routes, covering every section of the city and outlying districts. It is the largest milk-distributing firm in the Twin Cities and the largest consumers' cooperative organization in the United States.

In 1923 the company began the manufacture of ice cream. This had immediate popularity, and the first year's operation of this department showed a net profit of \$15,506.92. The report under review states that "at the present time our capacity for production is taxed to the limit during the hot summer months." In 1929 the association manufactured butter and ice cream valued at \$830,055.

The table below shows the development of the business of the Franklin Cooperative Creamery since its inception. This table was compiled from the various reports of the association and from data furnished directly to the Bureau of Labor Statistics.

DEVELOPMENT OF FRANKLIN COOPERATIVE CREAMERY, 1920 TO 1929

Year	Number of members	Number of employees	Paid-in share capital	Sales	Net gain	Rate of interest on capital	Patronage rebates	Assets
1920	1,750	(1)	\$165,000	(1)	(1)	Per cent (1)	(1)	(1)
1921	(1)	125	(1)	\$844,063	\$37,539	2	\$25,277	\$408,081
1922	(1)	(1)	646,008	1,670,694	105,432	4	72,744	813,464
1923	(1)	360	985,500	3,106,991	179,482	6	88,623	1,634,819
1924	5,269	(1)	(1)	3,301,476	121,783	7	-----	1,763,650
1925	5,112	423	983,500	3,533,175	102,033	7	-----	1,608,153
1926	5,003	(1)	972,700	3,398,659	59,711	5	-----	1,556,882
1927	4,769	(1)	951,100	3,341,740	67,499	5	-----	1,530,513
1928	4,625	430	(1)	3,410,397	95,521	6	-----	(1)
1929	4,474	425	927,600	3,442,291	130,156	6	-----	1,367,972

¹ No data.

As will be noted, the table shows a continuous increase in sales from 1921 to 1925; the two following years show decreases, but an upward turn in 1929 brought the figure to the highest point reached in any year except 1925. The decrease noted in net gain, beginning with the year 1924, is due to the fact that in September, 1923, the organization discontinued the payment of patronage dividends out of the net profits. Since that time the policy of the association has been to sell its products on a smaller margin of profit, giving the customer the benefit of the reduced price. Although some profit is still made, this is used for collective purposes.

An unfavorable feature of the table is the decline shown in membership of the association.

The equipment of the plants is of the best, and most of the processes are done by machinery. The association owns not only both of the buildings in which its two plants are housed, but also a separate building at each plant which is used for the housing and care of the horses and delivery equipment. Here are also shops in which the association manufactures its delivery wagons and trucks; a paint shop; a blacksmith shop; a shop for the manufacture and repair of harness; and a completely equipped garage for the motor trucks. The report states in this connection:

In maintaining and operating our own shops it has been possible not only to effect a saving in the cost of maintenance and delivery equipment, but also to furnish employment to a larger number who are in sympathy with the cooperative movement, and thus strengthen our own organization.

Welfare Work for Employees

AS ALREADY shown, this organization has 425 employees. All of these are members of some labor organization and most of them are also stockholders in the association.

For these employees the organization maintains at each plant a cafeteria at which good food is served at very low prices. Other features for the employees' benefit include shower baths and locker rooms. In 1925 the association took out an insurance policy on the life of every employee, the cost of which is borne by the association. This policy started with a principal sum of \$500, but increases \$100 each year thereafter until \$1,000 is reached. An additional policy of \$1,000 was taken out for each employee in 1928. The cost of this is also paid by the Franklin association.

The stability of this cooperative enterprise, in the eyes of the State authorities, is shown by the fact that the association is allowed to carry its own risk under the workmen's compensation law of Minnesota—in other words, it is a "self-insurer."

Employees' Activities

THE creamery employees have a band with 33 members and a male chorus of 32. The chorus gives a public concert each year "usually to an audience of over 2,000," and also sings at gatherings of various sorts at churches, lodges, membership meetings, community gatherings, etc. "The band, like the chorus, is kept busy constantly, especially during the summer months, in giving concerts in parks, community picnics, etc., and is usually booked for several months in

advance. For the last three years the Franklin band and chorus have been honored in being requested to open the music season in our municipal parks, usually playing to an audience of several thousands."

The employees also have a baseball team which for three years in succession (1926, 1927, and 1928) won the Minneapolis amateur baseball championship.

Franklin Cooperative Credit Union

In January, 1927, a credit union whose membership is open to Franklin shareholders and employees was organized. It began with 36 members. Early the next year the social and insurance club of the employees voted to dissolve that organization and transfer the membership to the new credit union. This brought the number of credit union members to 350, and the assets to \$1,800.

At first progress was slow, but in 1928 the credit union handled nearly \$40,000 of its members' money (in shares, Christmas savings, and other deposits). Its assets increased to \$10,000. At the beginning of December, 1928, the members' savings deposits amounted to \$7,500 and there were loans outstanding of nearly \$9,000.

The year 1929 showed a further increase in business. Assets increased by the end of June to \$23,000, the savings deposits to \$20,000, and the loans outstanding to more than \$17,000.

The practical value of this credit union is brought out in some instances cited. It is pointed out that, until the inauguration of the credit union, comparatively few of the Franklin employees had any savings accounts. "Some indeed were such poor managers of their own finances that they were continually in trouble. The creamery was accepting garnishments every week for a certain percentage of them and in three or four instances employees' finances became so involved that it was necessary for them to go through bankruptcy. A radical change has developed since then. Garnishments are rare occurrences now, hardly three or four a year."

Employees of the Franklin Creamery who are members of the credit union, and over 90 per cent are, never having had a savings account before, now have substantial savings in the credit union. Their bills are paid and as a result they are happier in their work and home. The credit union has in its files evidence of a number of complete reformations accomplished through the efforts of the credit union to help its members. A few details about one specific case might be interesting. This employee, a member of the credit union, has been garnisheed time after time during the period of a year or more. He owed a great many in town, could get no credit anywhere and his wages were being continually tied up. He not only owed several grocers but had contracts for furniture and clothing unpaid and owed his employers besides. He came to the office of the credit union, apparently as a last resort, put his cards on the table, told us what he owed and asked what we could do for him. We made him a loan of nearly \$300, secured by the signatures of two of his friends, also members of the credit union. He paid off this loan at the rate of \$3.50 per week and \$1.50 deposited to his savings account. We took the money from this loan and paid his bills. He agreed to pay cash for everything he purchased until the loan was paid. By the time his loan was paid he owed no one and had on deposit in the credit union a substantial savings account from which he did not withdraw a cent. To-day, just a few months after, his savings account has increased, he can get credit when he needs it and he pays his bills promptly. He is doing better work on his job and consequently his income has increased because of that fact.¹

¹ Other cooperative organizations which have credit unions are the Rock Cooperative Co., Rock, Mich., Consumers' Cooperative Services, New York City, and the Cooperative Trading Co., Waukegan, Ill.

Relative Importance of Cooperative Organizations in Trade, in Various Countries

THE annual report of the Director of the International Labor Office contains data showing the relative importance which the cooperative movement has attained in the economic life of some of the various countries of the world. Extracts from the report are given in Cooperative Information (Geneva) No. 6 (106), 1930.

The report points out that in some cases the central consumers' cooperative organization is the most important commercial enterprise in the country. This is true in Austria, Bulgaria, and Great Britain. The Swedish Cooperative Union owns the largest flour mills in Europe, while the Glasgow Cooperative Society owns the largest bakery in Europe. The canning factory of the German Cooperative Wholesale Society is the largest and most modern in Germany, and the printing works of the German consumers' cooperative societies is the largest of its kind in the country. The Czechoslovak Cooperative Wholesale Society is the largest producer of flour in Czechoslovakia, while the cooperative wholesale of the German-speaking societies of the same country operates the largest foodstuffs factory, the largest pickle factory, and the largest plant manufacturing linen cloth.

The table below, compiled from the report, shows the proportion of the total trade of specified commodities handled by the cooperative movement of the country.

PROPORTION OF TRADE IN EACH SPECIFIED COMMODITY HANDLED THROUGH COOPERATIVE ASSOCIATIONS

Consumers' (distributive) societies

Country and commodity	Per cent co-operatively handled	Country and commodity	Per cent co-operatively handled
Bulgaria: Sugar.....	25.0	Great Britain—Continued.	
Denmark:		Butter (imports).....	13.9
All retail trade.....	13.0	Bacon (imports).....	11.9
Cocoa.....	40.0	Milk.....	10.0
Chocolate.....	25.0	Cheese (imports).....	8.6
Foods—retail.....	23.0	Coal.....	8.0
Foods—wholesale.....	13.0	Hungary:	
Coffee.....	12.5	Salt.....	25.0
Margarine.....	12.5	Vinegar.....	20.0
Germany:		Gasoline.....	20.0
Lard.....	9.0	Poland:	
Sugar.....	5.0	Bread (production).....	11.0
Tea and coffee.....	3.0	Salt.....	8.0
Great Britain:		Sugar.....	6.0
Meat.....	20.0	Tobacco.....	5.0
Corn meal.....	15.5	Sweden: Bread grains.....	25.0
Sugar.....	14.0-15.0	Switzerland: Flour (production).....	10.0
Tea.....	14.0-15.0		

Agricultural supply societies

Austria: Seed potatoes.....	80.0	Latvia—Continued.	
Czechoslovakia: Saltpeter.....	50.0	Agricultural machinery.....	29.0
Latvia:		Cement.....	17.0
Fodder (imports).....	50.0	Sweden: Superphosphates.....	25.0
Fertilizers.....	34.0		

PROPORTION OF TRADE IN EACH SPECIFIED COMMODITY HANDLED THROUGH COOPERATIVE ASSOCIATIONS—Continued

Cooperative marketing associations

Country and commodity	Per cent co-operatively handled	Country and commodity	Per cent co-operatively handled
Australia: Butter (exports).....	91.0	Japan: Raw silk.....	6.0
Canada:		Latvia:	
Apples, British Columbia.....	83.0	Butter (exports).....	90.0
Apples, Nova Scotia.....	40.0	Bacon (exports).....	84.0
Grain (exports).....	25.0	Netherlands:	
Wool (exports).....	25.0	Butter.....	65.0
Denmark:		Cheese.....	45.0
Butter (exports).....	35.0-40.0	Eggs.....	25.0
Eggs (exports).....	25.0	New Zealand:	
Estonia:		Butter (exports).....	92.0
Butter.....	84.0	Butter.....	80.0
Eggs (exports).....	33.0	Palestine:	
Finland:		Almonds.....	100.0
Butter.....	92.0	Grapes.....	80.0
Butter (exports).....	92.0	Milk, Haifa.....	70.0
Cheese.....	70.0	Milk, Tel-Aviv.....	50.0
Cheese (exports).....	70.0	Milk, Jerusalem.....	25.0
Hungary: Honey (exports).....	63.0	Oranges (exports).....	35.0
Iceland: All farm products (exports).....	66.7		

¹ Approximate.**Thirteenth International Cooperative Congress**

THE thirteenth congress of the International Cooperative Alliance will be held in Vienna, Austria, August 25 to 28, 1930. At this congress the 40 countries of the world whose central cooperative organizations are affiliated to the International Cooperative Alliance will be represented. It is expected that among the delegates will be those representing the Cooperative League of the United States of America.

The proceedings are held in English, French, and German.

In addition to the regular sessions of the congress there will be special conferences on such subjects as international cooperative trade, international cooperative banking, international insurance, the international cooperative press, and the women's guild.

The tenth international cooperative school will be held during the week preceding the congress.

Society of the Familistère of Guise, France

WITH the publication of a series of articles on the Society of the Familistère of Guise, France, published in the *Cooperative Productive Review*¹ (Leicester, England), an outstanding instance of successful copartnership is again brought to public notice. The author reviews the organization, history, and present status of the Society of the Familistère. He points out that J. B. A. Godin, the founder, first developed the manufacture of stoves up to a standard of perfection that gave his product a position of leadership in the market. Having accomplished this, Godin then set out to realize his chief objective, that of turning over his factory to his employees under a copartnership arrangement, a plan which was realized in 1880. The

¹ See issues of September, 1929, to June, 1930, inclusive.

Familistère functioned under Godin's plan up to the period of the Great War, and was again put into operation in 1919 when the factory, which had been dismantled and partially destroyed during the war, was restored.

When Godin established the Familistère he did not give his property to the workmen. He let them buy him out. Each year, instead of receiving profits in cash, workmen were given savings certificates and the profits of the year were paid over to Godin. It was stipulated that an annual payment be made to Godin until the original capital was repaid and that even thereafter savings certificates should continue to be issued in lieu of cash and that the oldest savings certificates should be redeemed in cash each year from the funds thus released. This system is applied so that each generation of workers has ownership to the extent that profits are realized on its work.

Membership.—Under the terms of the copartnership, employee participants entitled to share in the profits of the Familistère are divided into three groups: (1) First-class members or partners; (2) associates; and (3) profit sharers. A fourth group of workers, known as helpers, comprising the floating personnel or workers who for some reason are ineligible to membership, do not participate in profits. However, that share of the profits which would normally come to them as workers is drawn and allocated to the pensions and necessities fund. In addition, funds are set aside for young persons, sons of members of the society, who participate on the same basis as profit sharers but come into possession of their savings only if they resume their places in the workshop after completing their military service.

The statutes provide that copartners must be of unimpeachable morality and conduct and make formal application for membership. First-class members must be at least 25 years old; associates and profit sharers, 21 years old. They must have served in the factory for five years, three years, or one year, respectively.

Administration.—A managing director is charged with the duty of administering the affairs of the Familistère. He is assisted by a managing committee, but final jurisdiction lies in the hands of the general assembly made up of first-class members only. This body nominates the management committee and managing director, passes on the admission or rejection of first-class members, and sanctions proposed modification of rules and statutes.

Basis of profit sharing.—The Cooperative Productive Review sets forth the basis upon which profits are divided, as follows:

The sharing of the fruits of labor between the various factors of production is done in the following order:

1. The share for the weak, which is forbidden to be diminished by the statutes, and which is allocated in the first place to the various mutual assurance funds (pensions, subsistence, sickness, etc.), and next to education.

2. The share of capital (its wage or interest).

3. The share of labor with a percentage reserved for the award of ability.

Let us now see in what proportion each of these factors enters into the sharing of profits.

The first charges upon the gross profits, before any dividend is apportioned are the amounts for:

1. Statutory deduction for depreciation of buildings and plant.

2. Grants to the various mutual assurance funds.

3. The expenses of education.

4. Interest on capital. (This is paid in cash.)

What remains constitutes the net profit and is divided as follows:

1. To the reserve fund, then to capital and labor if the reserve fund has reached 10 per cent of the capital, 25 per cent.

2. To capital and labor, 50 per cent.

(In this allocation, the share of labor is represented by the total amount of wages and salaries, and that of capital by the total amount of interest paid. The dividends of capital are paid in cash and those of labor in savings' certificates.)

3. To ability, 25 per cent as follows:

(a) To the managing director, in savings certificates, 4 per cent.

(b) To the committee of management, in savings certificates, 16 per cent.

(c) To the supervision committee, in savings certificates, 2 per cent.

(d) At the disposal of the committee of management to reward useful inventions and improvements suggested by members for the benefit of the society and paid either in cash or savings certificates, 2 per cent.

(e) To the maintenance in Government schools of boys and girls who have passed through the schools of the Familistère, 1 per cent.

It will be noted that Godin put capital in the position of a workman, who receives a fixed wage for his services, like other workmen, and then receives, like them, a share of profits, proportionate to his wage, and varying with the profitability of the business. Thus, if an ordinary laborer receives at the end of a year a dividend of 10 per cent on his wages, capital receives at the same time a dividend of 10 per cent on its wages, that is, on its interest. This interest being 5 per cent, it would, in the case assumed, be supplemented by a share of profit equal to one-half of 1 per cent, bringing the total reward of capital up to 5½ per cent. Godin's idea was that everyone who cooperates in the business should share in the profit according to the service rendered, and that as the wage represents the service rendered by the worker, so the interest represents the service rendered by the capitalist in providing the capital.

Cooperative features of the Familistère.—Even before Godin entered into arrangements with his workers whereby they became part owners of the establishment in which they worked, he had provided dwellings, nurseries, schools, and a library for their use. Provisions for mutual insurance and medical funds were made from the start. These facilities were transferred with the factory under the terms of the agreement whereby Godin sold out. Buildings have been extended from time to time. It is of interest to note that neither dwellings nor stores are run in accordance with the Rochdale plan of cooperation under which consumers supply the necessary capital. At the Familistère the various activities are financed out of the central treasury, and workers pay for whatever they may buy in cash or by presentation of a book which shows that they have sufficient funds on deposit with the Familistère to cover their purchases. Dividends on store purchases are paid at the end of the year, prorated according to amount expended by each individual, and the Familistère is forbidden by law to claim any share in profits.

Education and recreation.—Provision for the training of the young commences as early as two weeks after birth, when children may be placed in the nursery. Here a child may be cared for during any part of the day between 6 o'clock in the morning and 7 o'clock at night. The mother is free to come at regular intervals to feed her infant. At the end of two years the child passes into the babies' school to be cared for and amused up to the age of four, when he goes into the kindergarten to remain up to age seven. He then goes into the elementary school to remain up to age 14. Secondary school education is not provided, but a child may secure further training in State institutions at the expense of the Society of the

Familistère, provided he shows unusual aptitude and his family is not financially able to undertake to pay for his training.

Recreational facilities adapted to all tastes are readily at hand. Thirty-nine and one-half acres of land are devoted to parks, lawns, pleasure gardens, and kitchen gardens. The Familistère also has its own theater. Indoor entertainment is provided at intervals in the glass-inclosed courts about which the united dwellings are constructed.

Conclusion.—In conclusion the author draws attention to the fact that the Society of the Familistère has functioned for a half century, that it has outlived its founder by approximately a quarter of a century, that it has operated under three managing directors, and has passed through a ravaging war, and still stands as a convincing example of what copartnership may accomplish.

Agricultural Cooperation in Scotland

THE Government committee appointed in October, 1929, to study the condition of the Scottish agricultural cooperative movement has recently made its report.¹

In the whole of Scotland there are altogether 93 supply societies (which generally "are leading a very precarious existence"), 44 egg-marketing societies, 19 dairy associations, 1 wool-marketing society, 1 livestock society, 1 bacon factory, and 1 slaughterhouse, and 1 association each marketing grain, fruit, and fur.

Condition of Agricultural Cooperation

THE committee states its opinion that the Scottish agricultural cooperative associations "have justified themselves and proved that the principle of cooperation in the purchase of agricultural supplies and in the marketing of agricultural produce is a sound and practical method of improving the position of producers." The report cites the fact that, in the hearings in the course of the study, "no critics of agricultural cooperation appeared before us to contest the usefulness of the cooperative method."

While in general favoring the hands-off policy of allowing the movement to work out its own salvation, the committee is of the opinion that "the agricultural industry in Scotland has reached a position where it is impossible for the industry unaided to develop the necessary organization from its own resources." Agriculture is in a badly depressed condition as a result of a succession of unprofitable years, so that the farmers lack the financial resources necessary to establish better marketing organizations.

In fact the report brings out the point that a very large number of farmers are not free to take advantage of the cooperative-marketing machinery already established, "because they are so heavily indebted to merchants and auctioneers that they are bound to their creditors and can not buy or sell past them."

¹ Scotland. Committee on Agricultural Cooperation in Scotland. Report. Edinburgh, 1930. (Cmd. 3567.)

A vicious circle has been created. The depression forces farmers to accept credit, and this in turn prevents them from adopting "what, in the view of most of the witnesses we examined, is the most hopeful way of mitigating the depression and enabling the industry to get on its feet again."

The urgency of the situation is increased by the fact that the farmer is faced, both in buying his supplies and in selling his produce, by agencies which, by amalgamations and combinations, are becoming more and more powerful. These large-scale organizations are studying the market and are thus obtaining a hold on it which leaves "less and less room for the ungraded produce of farmers marketing without the aid of any agency competent to watch the market demand and to advise producers what is required."

The competition is not merely in price and quality, although both are important factors, but it is a competition in method of marketing which is more acceptable to the distributive trades. If our agriculture is to meet that competition on equal terms, it must be organized to market on the same method; and that requires organization on a larger scale than has been contemplated in the past, and organization on a large scale can not be created by the farmers, situated as they are to-day, without special assistance.

Agricultural Credit

CERTAIN governmental machinery has been set up to provide financial assistance to agricultural cooperation. The Scottish Department of Agriculture is empowered to make such loans under the land settlement act of 1919, under a special system set up to facilitate the formation and establishment of cooperative marketing enterprises, and under the agricultural credit act of 1929. Very little advantage has thus far been taken of these avenues of credit. Societies have for the most part been too small or too lacking in the necessary security to obtain loans under the land settlement act, only three applications have been made under the special system for encouragement of cooperative marketing, and there have been no applications at all under the 1929 act.

Recommendations of the Committee

THE recommendations of the committee include the following:

(1) That the supply societies be organized on a regional basis, on such a scale as will enable them to establish their own plants for the production of such commodities as fertilizer, feed, etc. The existing supply societies have not fulfilled the hopes of their founders. There are too many of them and under the present circumstances they merely add another trading body to those already existing. The committee is of the opinion that five societies organized on a regional basis would be able to supply the needs of the whole farming industry of Scotland.

(2) That the State should guarantee, to recognized banks, loans and overdrafts to approved agricultural cooperative societies up to the amount of £1,000,000 (\$4,866,500). The chief obstacle to the development of agricultural cooperation is the difficulty of raising funds.

(3) That a Scottish Agricultural Cooperative Federation be set up and that local societies be required to join this federation and subscribe for shares in it.

(4) That the power to make loans be delegated to a finance committee appointed by the Department of Agriculture.

(5) That applications for loans must be first studied by the Scottish Agricultural Cooperative Federation, which would then make a report to the agricultural finance committee. The committee would have power to determine the amount and conditions of the loan.

(6) That the industrial and provident societies act be amended so as to permit individual members of cooperative societies to hold as high as £500 (\$2,433) of the share capital of a local society. The present limitation is £200 (\$973). The report points out that there is a disposition on the part of many farmers, who are able to subscribe for a substantial amount of stock, to take the minimum amount which will enable them to qualify for membership. The committee is of the opinion that the minimum is generally fixed at too low a figure, and the result is that the society is always starved for funds. Pointing out that the greater the member's financial stake in the society, the greater his loyalty and interest in it, the committee recommends that persons be admitted into the society at a certain minimum figure, but that they be required to accumulate a definite larger amount toward which all or part of the member's dividends could be applied until the amount necessary for full membership was reached. This method would not only increase the working capital of the associations, but would in time enable them to repay the money advanced by the State.

(7) That marketing contracts be adopted, binding the member to deliver his crops to the association, and that the necessary legal steps be taken to insure the validity of such contracts.

(8) That the law be so amended as to permit the association to make advances to members on their crops.

(9) That a system of compulsory grading of products be introduced.

(10) That steps be taken to protect marketing agencies against minorities which refuse to become members. The report points out that to secure orderly marketing, organization is necessary and surplus produce must be kept off the market. The cost of this has to be borne by the members of the cooperative association, but if a minority of producers remain outside the association, they reap the benefits of the association's efforts without having contributed to the cost of the work. Also, the stabilized price established by the association is a direct incentive to such outsiders to increase their production, and this oversupply in turn depresses the price again. The committee is inclined to favor a requirement by which, whenever an association can prove that it handles not less than 75 per cent of the total production of a specified commodity, the minority group would also have to market through the association. (This expedient, it is pointed out, has already been adopted in several of the British Dominions.) In arriving at this conclusion the committee reasons as follows:

Such minorities do not remain outside the agencies because of any objection to organized marketing or because they believe that it is better to leave the market unregulated. They remain outside because they can exploit the agency to their own advantage. We do not think they have any sound claim to consider-

ation. If, as we hope, the State will increase the assistance it has given to organized marketing, and the result is an increase in the number of producers selling through marketing agencies, we think the State will find it necessary to protect the organizations it fosters from the shortsighted selfishness of a minority of producers. The matter is not urgent at the moment although it does have a deterrent effect on the formation of marketing agencies. The fear that the minority will wreck any scheme deters members from joining. The greater the risk of surplus crops in any commodity the more destructive the power of a minority can be, and it is just in the marketing of such crops as potatoes and grain that organized marketing is so necessary.

We can see no danger to the interests of producers, consumers, or the community generally, if a marketing agency had the right to apply to a recognized tribunal for an order to compel a minority of producers to market a commodity through the agency, provided the agency were required to prove that it represented not less than 75 per cent of the production in that commodity, and that it was reasonable that the minority should be required to market through the agency. Such a tribunal could lay down conditions to safeguard all interests and, in particular, could make provision that an agency controlling all the supply of any food commodity should have representatives of consumers on its governing body, and should be under such regulations as would prevent monopoly prices being exacted, or restriction of production pursued in an attempt to force scarcity prices.

Notes on Cooperative Developments

COOPERATIVE Marketing of milk.—Approximately 40 per cent of the milk sold in the United States in 1928 was marketed through cooperative organizations, according to a recent study¹ by the United States Department of Agriculture. The business done by these organizations in that year amounted to \$325,000,000. Of more than 150 milk-marketing associations, 45 that are members of the National Cooperative Milk Producers' Federation market approximately \$300,000,000 worth of milk a year. The Dairymen's League Cooperative Association of New York alone had a business of more than \$85,000,000 in 1928.

Cooperative societies of boatmen in Germany.—Workers' productive societies form a very small part of the cooperative movement of most countries, but they take some interesting forms and in their field may attain considerable importance. Examples of this are the cooperative labor societies of Italy and the dockers' societies of Belgium.

Cooperative Information (Geneva) No. 5 (105), 1930, contains an account of the boatmen's cooperative societies of Germany. These societies began to develop in the last decade of the nineteenth century. The members of these societies are men who own and pilot their own boats—either steam tugs or barges.

The object of these societies is the obtaining of contracts for the transport of goods or towage of vessels or barges, the work being done by the members.

The report states that there are in Germany to-day some 10,000 owners of small vessels, 80 per cent of whom belong to these cooperative societies. "It is due in no small measure to this organization that at the present day over 50 per cent of German inland navigation is still in the hands of small owners."

¹ United States. Department of Agriculture. Technical Bulletin No. 179-T: "Cooperative marketing of fluid milk," by Hutzel Metzger. Washington, 1930.

The societies have a wide network of agencies and are able to secure contracts providing continuous employment for the members. In addition, the different societies have agreements with each other by which any society can employ the equipment and members of another society when necessary. An auditing union which will look after the accounting of the various societies has recently been formed.

A whole series of auxiliary enterprises has been established by this group of societies. These include cooperative shipyards which build and repair the members' boats, supply societies which purchase at wholesale the supplies necessary in the trade (anchors, ropes, tar, etc.), and cooperative credit and insurance societies.

Cooperative societies in the Netherlands.—At the beginning of 1929 there were in the Netherlands 3,115 cooperative societies of all types, as compared with 3,103 on the same date of the previous year.² Of these 897 were credit societies, 528 were cooperative dairies, 752 were agricultural associations of various kinds, 28 were workers' productive enterprises, 220 were societies for purchase, sale, and production, 460 were consumers' societies, 146 were housing and construction societies, 55 were insurance societies, and 29 were in miscellaneous fields of business.

Cooperative society for native industries in China.—According to the Chinese Economic Bulletin for May 17, 1930, a cooperative society is being organized in Nanking, China, for the purpose of promoting and financing native industries. It is stated that membership will be open to the public as soon as the organization plans are completed.

² Netherlands. Centraal Bureau voor de Statistiek. Jaarcijfers voor Nederland, 1929. The Hague, 1930, p. 135.

LABOR ORGANIZATIONS

Membership of International Federation of Trade-Unions, December 31, 1928

THE following statistics on membership in the International Federation of Trade-Unions on December 31, 1928, are taken from the April and May, 1930, issues of the official organ of that body, the International Trade Union Movement:

TABLE 1.—MEMBERSHIP OF CONSTITUENT NATIONAL CENTERS OF THE INTERNATIONAL FEDERATION OF TRADE-UNIONS, DECEMBER 31, 1928

National centers	Men	Women	Total	Number of affiliated unions	Increase or decrease in membership during year
					<i>Per cent</i>
Argentina.....			² 82,000	14	-0.7
Austria.....	598,609	167,469	766,168	49	-0.9
Belgium.....	391,622	58,220	¹ 518,658	26	-2.2
Bulgaria.....			² 2,450	34	-1.4
Canada.....			² 143,582	138	+2.4
Czechoslovakia.....	437,525	119,666	557,191	71	+2.9
Denmark.....	116,483	39,495	155,978	53	-0.3
Estonia.....			² 5,506	29	+8.6
France.....			² 640,790	38	+5.9
Germany (A. D. G. B.).....	3,946,887	739,645	² 4,806,926	35	+10.2
Germany (A. F. A.).....	327,544	93,562	421,106	14	+6.7
Great Britain.....	3,208,173	464,971	3,673,144	202	-5.2
Greece.....			² 52,775	25	
Holland.....	206,436	14,109	220,545	28	+8.8
Hungary.....	104,472	19,906	124,378	37	-2.4
Latvia.....	16,601	5,287	21,888	23	+16.8
Lithuania.....					-100.0
Luxemburg.....			² 15,377	11	+8.4
Memel Territory.....	783	281	1,064	5	+3.9
Palestine.....	17,285	4,017	21,302	35	-2.6
Poland.....	243,601	28,716	272,317	29	+0.3
Rumania.....			⁴ 41,421	(⁵)	+54.3
South Africa.....			² 8,212	36	-86.5
Southwest Africa.....			² 600	8	
Spain.....			² 221,000	716	
Sweden.....	423,810	45,599	469,409	36	+7.2
Switzerland.....	157,752	18,686	176,438	15	+6.5
Yugoslavia.....	33,040	3,004	36,044	32	+8.5
Total.....	10,230,713	1,822,633	⁶ 13,516,269	1,739	+2.8

¹ Including 68,816 members not classified by sex.

² Not classified by sex.

³ Including 180,394 young workers not classified by sex.

⁴ Not classified by sex. Figures for June 30, 1929.

⁵ No information.

⁶ Including 1,462,923 members not classified by sex.

Table 2 gives the membership of the International Trade Secretariats on December 31, 1928, together with the percentage increase or decrease in such membership as compared with that on the same date of the preceding year.

TABLE 2.—MEMBERSHIP OF INTERNATIONAL TRADE SECRETARIATS, DECEMBER 31, 1928

Secretariat	Member- ship	Affiliated countries	Affiliated unions	Increase or decrease in mem- bership during year
				<i>Per cent</i>
Bookbinders.....	90,007	15	16	+8.5
Building workers.....	958,141	19	25	+13.4
Clothing workers.....	293,906	18	29	-2.9
Diamond workers.....	23,891	7	9	+4.6
Employees.....	750,579	20	46	+6.2
Factory workers.....	553,810	14	22	-8.6
Food and drink workers.....	812,563	20	31	+5.1
Glass workers.....	98,676	12	13	+9.8
Hairdressers.....	9,572	9	10	+4.4
Hatters.....	35,851	11	12	-3.8
Hotel employees.....	73,777	17	19	+10.7
Land workers.....	297,845	12	15	-19.9
Leather workers.....	313,529	16	30	+2.4
Lithographers.....	51,303	19	20	+4.2
Metal workers.....	1,732,817	19	28	-5.6
Miners.....	1,540,425	17	17	-6.8
Painters.....	241,434	12	13	+1.8
Postal employees.....	440,722	22	32	+15.0
Pottery workers.....	141,789	6	6	-6.8
Public services.....	512,436	14	14	-2.2
Stone workers.....	117,815	11	13	+5.0
Teachers.....	98,601	6	7	+21.8
Textile workers.....	996,356	11	13	+3.7
Tobacco workers.....	126,601	12	12	+5.7
Transport workers.....	2,190,145	32	81	+5.1
Typographers.....	188,487	22	22	+2.8
Woodworkers.....	1,018,783	25	48	-4.1
Total.....	13,709,861		603	+0.4

Membership of Workers' Organizations in Various Countries, December 31, 1928

THE accompanying table shows the number of organized workers in various countries of the world on December 31, 1927, and December 31, 1928. The figures are taken from a more detailed table published in the May, 1930, issue of the International Trade Union Movement, the official organ of the International Federation of Trade-Unions.

NUMBER OF ORGANIZED WORKERS IN VARIOUS COUNTRIES, DECEMBER 31, 1927, AND DECEMBER 31, 1928

Country	Membership		Country	Membership	
	1927	¹ 1928		1927	¹ 1928
<i>Europe</i>			<i>Europe—Con.</i>		
Austria.....	963,550	999,137	Latvia.....	34,032	37,388
Belgium.....	762,886	724,408	Lithuania.....	18,486	
Bulgaria.....	2,485	31,450	Luxemburg.....	15,479	17,668
Czechoslovakia.....	1,696,897	1,738,265	Memel Territory.....	1,024	2,914
Denmark.....	309,885	311,052	Norway.....	104,152	107,982
Estonia.....	14,331	13,336	Poland.....	577,581	512,317
Finland.....	75,846	90,321	Portugal.....	40,000	20,000
France.....	1,218,250	1,200,600	Rumania.....	46,631	41,421
Germany.....	8,217,923	8,694,887	Russia.....	10,248,000	11,060,000
Great Britain.....	4,908,000	4,673,144	Spain.....	262,000	291,000
Greece.....	98,470	82,775	Sweden.....	529,974	564,009
Holland.....	407,665	561,037	Switzerland.....	254,992	265,612
Hungary.....	185,337	177,678	Yugoslavia.....	57,717	60,044
Iceland.....	4,540	5,000			
Ireland.....	111,921	108,636			
Italy.....	2,768,730	3,000,000	Total.....	33,936,784	35,392,081

¹ For most countries for which no membership is given in this column, it is explained that such membership is not known or that no new information has been received.

NUMBER OF ORGANIZED WORKERS IN VARIOUS COUNTRIES, DECEMBER 31, 1927,
AND DECEMBER 31, 1928—Continued

Country	Membership		Country	Membership	
	1927	1928		1927	1928
<i>America</i>			<i>Asia</i>		
Argentina.....	164,874	112,000	Ceylon.....	40,000	114,000
Bolivia.....	5,000	5,000	China.....	2,800,000	
Brazil.....	22,562	116,500	Dutch East Indies.....	24,021	24,021
Canada.....	290,282	300,602	India.....	300,000	273,621
Chile.....	204,000		Japan.....	316,906	308,900
Colombia.....	11,400	10,000	Korea.....	123,000	
Cuba.....	250,000	71,186	Mongolia.....	5,000	
Dominica.....		3,442	Palestine.....	21,873	21,652
Guatemala.....	3,000	3,349	Philippines.....	67,000	
Honduras.....	6,000		Total.....	3,697,800	742,194
Mexico.....	2,119,347	1,850,000	<i>Africa</i> ¹		
Nicaragua.....	6,000		British Guinea.....	1,073	1,073
Panama.....	3,000		Egypt.....	60,000	60,000
Paraguay.....	8,000		South Africa.....	82,660	28,824
Peru.....	25,000		South West Africa.....	600	600
Porto Rico.....	18,000	(²)	Total.....	144,333	90,497
Salvador.....	10,000		<i>Summary</i>		
Trinidad and Tobago.....		722	Europe.....	33,936,784	35,392,086
Uruguay.....	28,484	5,000	America.....	7,416,491	6,947,291
Venezuela.....		25,972	Australasia.....	991,652	1,018,457
United States.....	4,241,542	4,443,523	Asia.....	3,697,800	742,194
Total.....	7,416,491	6,947,296	Africa.....	144,333	90,497
<i>Australasia</i>			Grand total.....	46,187,060	44,190,525
Australasia.....	911,652	911,541			
New Zealand.....	80,000	106,916			
Total.....	991,652	1,018,457			

² National Center of Porto Rico reported 15,000 members in 113 unions. Figures received too late for insertion in table. (It will be noted in the article entitled "Country and town laborers in Porto Rico" (p. 46), the latest available figures on trade-union membership for the Island is approximately 35,000 in 236 organizations.)

¹ Average membership of free trade-unions of Algeria was 8,670 in 1929. Figures received too late for insertion in table.

In the text of the report it is stated that there are also workers' organizations in Costa Rica, Ecuador, Port East Africa, Surinam, Tangiers, Tunis, and Turkey. Haiti was found to have no trade-union movement.

VOCATIONAL TRAINING

Report of Director of International Labor Office on Vocational Training in 1929¹

THERE were no outstanding new developments in the sphere of vocational training in 1929. Nevertheless, a certain amount of progress was made, especially in the direction of coordinating the various efforts to find an adequate solution for the problem of the training of future workers.

Vocational Guidance

A CERTAIN number of new measures on the subject of vocational guidance have been adopted, and the measures in use have been improved and adapted more closely to practical requirements. There is a tendency to replace vague theoretical generalization by more practical work, corresponding to the necessities of economic life. The spread of unemployment among professional workers has led to special measures for the vocational guidance of future brain workers.

In Australia, the vocational guidance scheme prepared by the Education Department of the State of Victoria is shortly to be put in force. In Belgium the question of vocational guidance has been discussed by the economic council of the Belgian Trade-Union Committee. In Czechoslovakia, the Czechoslovak Textile Institute has decided to set up a psychotechnical department and to open about 10 vocational guidance offices and psychotechnical laboratories in connection with the textile training schools in the principal districts where the textile industry is carried on. In Estonia, the first vocational guidance office has been opened at Reval. In Germany, according to a statistical report recently published by the Central Office for Employment and Unemployment Insurance, the 611 public vocational guidance offices which work in connection with the employment exchanges dealt with 438,027 young persons in 1928 as compared with 235,013 in 1923.

In Poland, where there are already some 20 vocational guidance centers using psychotechnical methods, it has been decided, in view of the satisfactory results obtained, to hold psychotechnical examinations for candidates wishing to be admitted to vocational schools, and to set up a special psychotechnical laboratory in connection with the Cracow Industrial Museum to carry out tests for tram drivers. In Rumania, a vocational guidance office has been founded at Bucharest. In Spain, the regulations on vocational training drawn up by the Ministry of Labor deal also with the two main features of vocational guidance, the organization of vocational guidance offices and psychotechnical laboratories, and the training of vocational guidance experts of various kinds—psychologists, doctors, and psychotechnicians. A preapprenticeship school, on the lines of the instructional workshops set up by the Paris Chamber of Commerce, has also been

¹ Reprinted from International Labor Office. Director. Report to the International Labor Conference, fourteenth session, Geneva, 1930. First part. Geneva, 1930, pp. 219-221.

opened at Madrid. Here again it will be noted that what is being done is essentially practical in its aims.

Switzerland is the country which has acquired the most varied experience in this matter. Special committees deal with vocational guidance for commerce, the liberal professions, young persons in mountain districts, and handicapped adolescents. An increasing number of publications on vocational guidance, including monographs and specialized periodicals, are distributed in schools. The Canton of Geneva has instituted preapprenticeship classes, and during 1929 put into force the act of June 28, 1928, under which children of school age may not engage in paid employment unless they have passed a medical examination showing that such employment will not be injurious to their health and that their physical development will be unaffected until such time as their vocational training begins. A psychotechnical institute was founded at Geneva at the end of 1929 by the Association Romande de Rationalisation, with the support of a number of employers. This institution will be mainly engaged in vocational guidance and selection, physical training of young persons, and the building up of a trained staff for the factories of the Canton.

The Swiss Association for Vocational Guidance and the Protection of Apprentices, too, is drawing up a scheme defining the activity and competence of all bodies concerned with vocational training and making arrangements for collaboration between them.

Apprenticeship

MUCH work is also being done and considerable progress has been realized in the matter of apprenticeship.

In Australia, in the State of Victoria, the apprenticeship commission set up in connection with the Ministry of Labor has issued its first report, the conclusions of which contain proposals for various reforms and innovations. In Belgium, a royal decree dated October 5, 1929, set up an advisory committee in connection with the Superior Council of Technical Education to study the problem of vocational training in the coal-mining industry. The Belgian National Railway Co. has also appointed a committee to consider the vocational training of railway men. Apprenticeship in Canada in the Province of Ontario has been supervised since 1929 by the Provincial Apprenticeship Committee. This body was set up under the apprenticeship act previously adopted by the parliament of the Province. The Government of Chile in the autumn of 1929 issued a decree dealing with the training of instructors engaged in industrial education. The architects' association has established a technical school for the training of workers in the building trade.

In France, the competent authorities are considering how to improve the regulations relating to apprenticeship and technical education. The Superior Labor Council at its thirty-second session adopted resolutions on apprenticeship, expressing the hope that the Superior Council of Technical Education will in the near future decide in what trades apprenticeship, in the sense of Volume I of the Labor Code, shall be compulsory. The object in view is that every young person under 18 shall be provided with a written apprenticeship contract authorizing his employment and guaranteeing that he will

receive vocational training. The council at the same time asked for special legislation applying the provisions of the Labor Code to the liberal professions and proposing that the principle of the application of those provisions should also be observed when the apprentice is trained in a public or private apprenticeship school.

The Central Inter Occupational Apprenticeship Committee again met under the auspices of the French General Confederation of Production. The Twentieth National Congress of the General Confederation of Labor also discussed the question of apprenticeship and technical education. It laid stress on the necessity of carrying out the act of March 20, 1928, making an apprenticeship contract compulsory. It further expressed the hope that the departmental committees on technical education should at a suitable time be transformed into apprenticeship chambers containing representatives of both employers and workers.

The Federated Trade-Unions and Producers' Cooperative Societies in the building industry in the Paris district recently set up a Union of Trade-Unions and Producers' Cooperative Societies for Apprenticeship in the Building Corporations, the object of which is to promote so far as possible the vocational training of young workers in the building trade.

In Germany the bill regulating vocational training which came before the legislature in 1927 was discussed by the Reichstag and was also studied and commented on by the various circles concerned. According to the bill the principal features of apprenticeship contracts will be regulated by collective agreement. Accordingly, the bodies responsible for the supervision of vocational training will no doubt include equal numbers of employers' and workers' representatives. A large number of existing collective agreements contain clauses dealing with apprenticeship.

Attention has also been devoted to the protection of apprentices. The Reichsausschuss der Deutschen Jugendverbände has organized a large-scale inquiry into the holidays granted to apprentices and young workers.

In Great Britain, the National Advisory Councils for Juvenile Employment set up in connection with the Ministry of Labor have put forward proposals for the future organization of junior employment training centers. These institutions are to work in close co-operation with the local employment exchanges. In Latvia, an apprenticeship committee has recently been set up. Luxemburg adopted an apprenticeship act on January 5, 1929. In Poland a number of inquiries and investigations are being carried out. The Central Committee on Young Persons of the Workers' University Association has published an interesting report on the conditions of work of young persons. With a view to improving theoretical vocational education the Diet has requested the Ministry of Education to arrange that the vocational courses to be attended by young workers should take place during the day so that they may be included in working hours.

In Rumania, an act of March 28, 1929, concerning contracts of employment contains detailed provisions in section 1, paragraph 1, regulating apprenticeship contracts. The Department for Vocational

Education in the Ministry of Labor has decided to set up vocational schools and apprenticeship centers.

A number of important decisions have also been taken in Switzerland. On September 30 and October 1, 1929, the National Council adopted a Federal bill on vocational training which is to be referred to the Council of States. The authorities of the Canton of Zurich at the end of 1929 issued a decree under sections 9 and 25 of the cantonal apprenticeship act laying down special provisions for apprenticeship in the baking trade. The Council of State of the Canton of Vaud has recently instituted vocational training by wireless for apprentices who are unable to follow courses in any other way.

Technical Education

PROGRESS has also been made as regards technical education in the strict sense. It is, however, becoming increasingly difficult to draw a distinction between technical education and apprenticeship in factories and artisans' workshops. The theoretical training of apprentices employed in industrial or handicraftsmen's undertakings is to-day regarded as a first step toward higher technical education. Under modern conditions there is a growing need for skilled workmen with greater ability and knowledge. This was recently pointed out in Belgium by Mr. Hiernaux, president of the Superior Council of Technical Education, at the last session of the council.

In Italy, the Council of Ministers on July 24, 1929, approved a bill concerning secondary technical education. The effect of the bill is not only to complete but also to simplify the system of technical education. It also regulates the teaching of physical culture in the schools and technical and vocational institutes and provides that the Ministry of Corporations shall contribute to the expenses. In many other countries, including Brazil, Chile, France, and Greece, new vocational schools have been instituted. Their curriculums and teaching methods are adapted to scientific requirements as well as to those of modern industrial life. In Greece, the first sections of the great institution known as the Civitanidis School have been opened. In India, the Bengal Government creates or subsidizes centers for higher vocational training. In Poland, the vocational schools have in some cases developed into regular labor universities providing both for adult and adolescent students. The education provided is intended to promote the general culture as well as the vocational training of the pupils.

Recent Trends

THERE would indeed seem to be an increasing tendency to draw no hard and fast line between general and vocational education. It is realized that vocational training can not give satisfactory results unless it is based upon adequate general education. This view, which is now generally admitted, is explicitly or implicitly reaffirmed in the resolutions adopted by four important international meetings, the Biennial Congress of the International Federation of Teachers which met at Geneva, the General Assembly of the International Association for Social Progress, the Congress of the International Association for Commercial Education, and the Assembly of the International Trade-Union Committee for questions relating to

young persons and education. At all these meetings stress was laid on the necessity of continuing compulsory education up to the age of 14 at least, in order to allow of an adaptation of legislation on compulsory education to the International Labor Conventions concerning the minimum age of admission of children to employment, and also in order to enable the working classes to acquire a better general education. The fact that these views were put forward at the International Trade-Union Committee shows that the workers themselves are conscious of their requirements and their rights and are ready to take an effective part in the training of future workers. The importance attached to general and vocational education can also be seen from the trade-union press and from the activities of the national trade-union organizations.

Progress Toward Labor Humanism

AN ATTEMPT to sum up the impressions derived from a consideration of the work and progress accomplished in the direction of securing a better system of vocational training and a more adequate general education for the working classes reveals an advance toward that "labor humanism" advocated by those who have at heart the improvement of the lot of the worker and the protection of his rights—not only his right to better material conditions but also to an unhindered and harmonious development of his own personality.

INDUSTRIAL DISPUTES

Strikes and Lockouts in the United States in June, 1930

DATA regarding industrial disputes in the United States for June, 1930, with comparable data for preceding months are presented below. Disputes involving fewer than six workers and lasting less than one day have been omitted.

Table 1 shows the number of disputes beginning in 1927, 1928, and 1929, number of workers involved and man-days lost for these years, the number of industrial disputes for each of the months—January, 1928 to June, 1930, inclusive—the number of disputes which began in these months, the number in effect at the end of each month and the number of workers involved. It also shows, in the last column, the economic loss (in man-days) involved. The number of workdays lost is computed by multiplying the number of workers affected in each dispute by the length of the dispute measured in working days as normally worked by the industry or trade in question.

TABLE 1.—INDUSTRIAL DISPUTES BEGINNING IN AND IN EFFECT AT END OF EACH MONTH, JANUARY, 1928, TO JUNE, 1930, AND TOTAL NUMBER OF DISPUTES, WORKERS, AND MAN-DAYS LOST IN THE YEARS 1927, 1928, AND 1929

Month and year	Number of disputes—		Number of workers involved in disputes—		Number of man-days lost during month or year
	Beginning in month or year	In effect at end of month	Beginning in month or year	In effect at end of month	
1927: Total.....	734		349,434		37,799,394
1928: Total.....	629		357,145		31,556,947
1929: Total.....	903		230,463		9,975,213
1928					
January.....	48	63	18,850	81,880	2,128,028
February.....	52	58	33,441	103,496	2,145,342
March.....	41	47	7,459	76,069	2,291,337
April.....	71	48	143,700	129,708	4,806,232
May.....	80	56	15,640	133,546	3,455,499
June.....	44	46	31,381	143,137	3,670,878
July.....	54	42	18,012	132,187	3,337,386
August.....	59	42	8,887	105,760	3,553,750
September.....	52	34	8,897	62,862	2,571,982
October.....	61	42	27,866	41,474	1,304,913
November.....	44	38	37,840	38,745	1,300,362
December.....	23	29	5,172	35,842	991,238
1929					
January.....	48	36	14,783	39,569	951,914
February.....	54	35	22,858	40,306	926,679
March.....	77	37	14,031	40,516	1,074,468
April.....	117	53	32,989	52,445	1,429,437
May.....	115	73	13,668	64,853	1,727,694
June.....	73	57	19,969	58,152	1,627,565
July.....	80	53	36,152	15,589	1,062,428
August.....	78	43	25,616	6,714	358,148
September.....	98	49	20,233	8,132	244,864
October.....	69	31	16,315	6,135	272,018
November.....	61	32	10,443	6,067	204,457
December.....	33	21	3,386	2,343	95,541
1930					
January.....	42	21	8,879	5,316	182,202
February.....	44	33	37,301	6,562	436,788
March.....	49	34	15,017	5,847	289,470
April.....	60	41	5,814	5,711	180,445
May ¹	62	35	7,625	3,932	190,522
June ¹	42	36	11,445	7,197	153,644

¹ Preliminary figures, subject to change.

Occurrence of Industrial Disputes, by Industries

TABLE 2 gives by industry the number of strikes beginning in April, May, and June, 1930, and the number of workers directly involved.

TABLE 2.—INDUSTRIAL DISPUTES BEGINNING IN APRIL, MAY, AND JUNE, 1930

Industry	Number of disputes beginning in—			Number of workers involved in disputes beginning in—		
	April	May	June	April	May	June
Auto, carriage, and wagon workers.....	2		1	270		950
Bakers.....		2			47	
Barbers.....		2	1		730	14
Brick and tile workers.....	1			85		
Broom and brush workers.....	1			20		
Building trades.....	23	30	12	2, 124	3, 100	630
Car builders.....	1	1		80	30	
Chauffeurs and teamsters.....	5	10	2	330	2, 219	173
Clothing.....	3	5	4	181	250	206
Food workers.....	1	1		101	14	
Furniture.....	1	1		53	18	
Hotel and restaurant workers.....	1			7		
Iron and steel workers.....	1		1	500		24
Leather.....		1			14	
Longshoremen.....	3		1	376		136
Lumber and timber.....		2			70	
Metal trades.....	3	1	2	133	50	135
Miners.....	4	1	9	839	700	8, 850
Motion picture operators, actors, and theater employees.....			1			18
Printing and publishing.....			3			76
Stone.....	1	1		50	200	
Street railway workers.....			1			16
Textiles.....	6	4	4	369	183	217
Other occupations.....	3			296		
Total.....	60	62	42	5, 814	7, 625	11, 445

Size and Duration of Industrial Disputes, by Industries

TABLE 3 gives the number of industrial disputes beginning in June, 1930, classified by number of workers and by industries.

TABLE 3.—NUMBER OF INDUSTRIAL DISPUTES BEGINNING IN JUNE, 1930, CLASSIFIED BY NUMBER OF WORKERS AND BY INDUSTRIES

Industry	Number of disputes beginning in June 1930 involving—				
	6 and under 20 workers	20 and under 100 workers	100 and under 500 workers	500 and under 1,000 workers	1,000 and under 5,000 workers
Auto, carriage, and wagon workers.....				1	
Barbers.....	1				
Building trades.....	2	8	2		
Chauffeurs and teamsters.....		1	1		
Clothing.....		4			
Iron and steel.....		1			
Longshoremen.....			1		
Metal trades.....		2			
Miners.....		1	3	2	3
Motion-picture operators, actors, and theater employees.....	1				
Printing and publishing.....	1	2			
Street railway workers.....	1				
Textiles.....	1	2	1		
Total.....	7	21	8	3	3

IN Table 4 are shown the number of industrial disputes ending in June, 1930, by industries and classified duration.

TABLE 4.—NUMBER OF INDUSTRIAL DISPUTES ENDING IN JUNE, 1930, BY INDUSTRIES AND BY CLASSIFIED DURATION

Industry	Classified duration of strikes ending in June					
	One-half month or less	Over one-half and less than 1 month	1 month and less than 2 months	2 months and less than 3 months	3 months and less than 4 months	4 months and less than 5 months
Barbers.....	1					
Building trades.....	5	3	4			
Chauffeurs and teamsters.....	1	1	1		1	
Clothing.....	1	2	1	1		1
Furniture.....	1					
Metal trades.....	1					
Miners.....	6				1	
Motion-picture operators, actors, and theater employees.....	1					
Printing and publishing.....	2					
Textiles.....	2	2				1
Other occupations.....			1			
Total.....	21	8	7	1	2	2

Principal Strikes and Lockouts Beginning in June, 1930

Coal miners, Illinois.—Claiming the scales were inaccurate and registering 200 pounds short per car, 700 employees of the Bell & Zoller Coal & Mining Co. at Zeigler were on strike from June 13 to June 16. The scales were tested by the State mine inspector and found to be weighing correctly.

Anthracite coal miners, Pennsylvania.—Because they objected to the employment of nonunion men on construction work at the mines by Stone & Webster, contractors, approximately 1,400 miners are reported to have been on strike from June 10 to June 12, two collieries of the Philadelphia & Reading Coal & Iron Co. near Locust Gap in the Mount Carmel district being affected. According to press reports the dispute was settled satisfactorily to the miners by the contractors' agreeing to allow their employees to join the union.

Several mines of the Hudson Coal Co. at Larksville are reported to have been affected by a strike of 2,980 miners beginning June 17 and ending June 20, because too many men were taken from the boiler rooms. It is understood that the miners returned to work pending a settlement of grievances by a local conciliation board.

Objecting to the discharge of 4 men, 700 miners employed by the Alden Coal Co. at Alden are reported to have been on strike from June 17 to July 3. The discharged men, it is understood, were reinstated.

Demanding that work be equalized in the various mines of the company, some 2,500 miners employed by the Pittston Coal Co. in Lackawanna and Luzerne Counties struck on June 21. This strike, ordered by the "general grievance committee," ended, it is understood, on or about July 2, after being called off by the committee, a great majority of the company's employees (probably 85 to 90 per cent) having ignored the strike order, which was not authorized by the union officials of District No. 1, United Mine Workers of America.

Automobile workers, Michigan.—According to press reports the Fisher Body Corporation at Flint, manufacturers of automobile bodies, was affected by a strike of metal finishers and trimmers from June 26 to July 7. This strike, which involved 950 workers directly, resulted in 3,500 other employees being thrown out of work. The employees, it is understood, returned to work under conditions named by the corporation, the disturbance having been caused by "change of construction and design used as a lever by communistic influence." Strike leaders had claimed that wages were to be reduced. This was denied by the management.

Textile workers, Pennsylvania.—An unsuccessful strike of 325 textile silk workers, employed by the Stewart Silk Co., of Easton, is reported to have been in effect from June 9 to July 12, against a wage reduction of 10 per cent.

Principal Strikes and Lockouts Continuing into June, 1930

NONE of the strikes commented upon in this column in previous issues of the Labor Review remain in effect.

Conciliation Work of the Department of Labor in June, 1930

By HUGH L. KERWIN, DIRECTOR OF CONCILIATION

THE Secretary of Labor, through the Conciliation Service, exercised his good offices in connection with 54 labor disputes during June, 1930. These disputes affected a known total of 16,790 employees. The table following shows the name and location of the establishment or industry in which the dispute occurred, the nature of the dispute (whether strike or lockout or controversy not having reached the strike or lockout stage), the draft or trade concerned, the cause of the dispute, its present status, the terms of settlement, the date of beginning and ending, and the number of workers directly and indirectly involved.

On July 1, 1930, there were 25 strikes before the department for settlement and in addition 17 controversies which had not reached the strike stage. The total number of cases pending was 42.

LABOR DISPUTES HANDLED DURING THE MONTH OF JUNE, 1930

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Armour Co., Gary, Ind.	Strike	Teamsters	Asked union recognition and wage increase.	Adjusted. Allowed Chicago wage scale; further negotiations in progress.	1930 May 28	1930 June 8	9	---
Cleveland Hotel, Cleveland, Ohio.	Threatened strike.	Stationary engineers.	Proposed change from hourly to monthly wages.	Pending	June 2	---	10	4
Granite companies, Chester, Mass.	Strike	Quarry workers	Refusal to renew agreement at 69 cents per hour; 62½ offered.	Adjusted. Accepted 65½ cents per hour until Apr. 1, 1931.	June 30	July 9	37	45
Bellar Construction Co., Bakersfield, Calif.	Controversy	Carpenters	Asked 5-day week at \$9 per day.	Adjusted. Union men employed at \$9 per day.	May 30	June 28	20	60
Structural bridge and iron workers, Boston, Mass.	do	Ironworkers	Asked 5-day week and \$1.50 per day.	Pending	June 1	---	900	---
Barbers, Youngstown, Ohio	Strike	Barbers	Proposed revised agreement with wage cut from \$29 to \$25 weekly guaranty.	Adjusted. Renewed 1929 agreement.	June 3	June 6	20	---
Warner Bros. Theater, Youngstown, Ohio.	do	Laborers and truck drivers.	Asked recognition; sympathy with building crafts.	Adjusted. Returned; conferences continued.	May 30	June 17	40	---
Kenace Silk Co., Stroudsburg, Pa.	do	Textile workers	Sympathy with other mills on strike.	Adjusted. Returned when Zaleschitz Mill workers returned.	May 24	June 10	21	---
Shapiro Silk Co., Stroudsburg, Pa.	do	do	do	do	June 2	do	12	---
Ferry clerks, San Francisco, Calif.	Controversy	Ferry clerks	Asked recognition of clerks' union.	Pending	June 5	---	100	300
Plumbers and steamfitters, Trenton, N. J.	Strike	Building	Asked \$13 per day; \$1 increase.	Adjusted. Returned without increase.	May 19	June 5	75	---
Newark Baking Co., Newark, N. J.	do	Bakers	Wage cut from \$50 to \$45 per week.	Unable to adjust. Places filled by others.	May 1	June 6	7	---
Delta Farms, Seapoose, Oreg.	Controversy	Farm laborers	Filipino laborers employed.	Adjusted. Growers agreed to employ Filipinos on cucumber and bean crops only.	June 3	June 15	500	200
Saks Fur Co., Washington, D. C.	do	Fur workers	Discharge of a cutter in violation of contract.	Adjusted. Satisfactorily settled in conference.	June 6	June 9	1	10
County jail repair work, Indianapolis, Ind.	do	Sheet-metal workers.	Nonunion labor employed.	Adjusted. Union labor employed.	Apr. 25	June 1	10	10
American Art Mosaic Tile Co., Indianapolis, Ind.	Strike	Terrazzo workers' helpers.	Dispute relative to wages and union working conditions.	Adjusted. Allowed union conditions and 80 to 95 cents per hour.	June 9	June 23	50	75
Highway Garage, Terre Haute, Ind.	Controversy	Carpenters and bricklayers.	Nonunion labor employed.	Adjusted. All union labor employed.	May 15	June 8	20	10
Wm. Barbasse, Jr. & Co. (Inc.), Bronxville, N. Y.	Strike	Laborers	Refused to handle ready-mixed concrete.	Adjusted. Returned; terms arranged by Building Trades Council.	May 20	June 10	16	75
Wolverine Hotel, Detroit, Mich.	Lockout	Engineers	Wages and working conditions.	Adjusted. Allowed pay restoration to \$260 per month.	June 12	June 17	4	300

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Strike	Longshoremen	Union men refused to work with nonunion men on United States Shipping Board ships. Wage cut.	Pending	Apr. 16	136
Lockout	Garment workers	Employment of nonunion men in construction work.	Unable to adjust. Others employed.	June 12	14
Strike	Miners	Refusal to renew agreement.	Adjusted. Returned; local conciliation board arranged terms.	June 9	1,400
Controversy	Granite cutters	Wages cut 10 per cent.	Unadjusted. Mediation not accepted.	June 12	45
do	Silk workers	Wage cut.	Pending	June 9	325
Strike	do	Wages of loaders cut from 48 to 42 cents per ton; inside men cut to \$1.25 per ton.	Adjusted. Restored wages as before cut.	June 17	150
do	Miners	Asked increase from \$43 to \$48 per week.	Unadjusted. Mediation not desired.	June 11	130
do	Printers	Asked wage increase.	Pending	June 17	32
do	Silk weavers	Asked 5-day week with same pay as for 5½ day week.	do	Apr. 1	80
do	Electricians	Discharge of foreman.	Adjusted. Same wages until Sept. 1, 1930, then rising scale till 1932.	June 12	125
do	Plumbers	Nonunion mason tenders employed.	Adjusted. Allowed 5-day week and \$11 per day.	June 1	45
Threatened strike	Drivers	Sympathy strike; nonunion conditions.	Adjusted. Returned; explanations satisfactory.	June 17	21
do	Tile setters' helpers	Sympathy and sympathy with other building trades on strike.	Adjusted. Returned; contract calls for "no stoppage of work."	May 26	85
Controversy	Plasterers and cement finishers	Sympathy with other tile workers' helpers on strike.	Adjusted. Satisfactory agreement; 80 to 95 cents per hour for helpers.	June 12	1
Strike	Tile setters' helpers	Sympathy with Niagara Falls printers.	Adjusted. Satisfactory agreement; paid for lost time.	June 14	30
do	Printers	Wages, conditions, and discharge.	Adjusted. New union agreement concluded.	do	6
do	Miners	Working conditions.	Pending	June 17	16
do	do	Reduced number of boiler men.	Adjusted. Returned; conciliation board to fix terms.	do	700
do	Electricians	Asked prevailing wage, \$1.37½ per hour.	Unadjusted. Returned without change.	June 19	20
do	Polishers	Removal of guaranteed day rate.	Unadjusted. Allowed 5 cents per hour increase before commissioner's arrival.	June 17	53
do	Building trades	Asked 5-day week.	Unadjusted. Allowed 5-day week; small change in wages.	June 1	43
do	Ironworkers	Asked increase from \$14 to \$16 per day.	Pending	do	50
do	do	do	do	June 2	30

LABOR DISPUTES HANDLED DURING THE MONTH OF JUNE, 1930—Continued

Company or industry and location	Nature of controversy	Craftsmen concerned	Cause of dispute	Present status and terms of settlement	Duration		Workers involved	
					Beginning	Ending	Directly	Indirectly
Thormond Monson Co., Chicago, Ill.	Strike	Typographical workers.	Asked recognition of union.	Pending.	Jan. 15		16	2
Plumbers, Plattsburg, N. Y.	do.	Plumbers.	Asked wage increase.	do.	June 15		20	
Abendroth Stove Co., Port Chester, N. Y.	Lockout	Stove mounters.	Wages cut 33½ per cent; asked recognition.	Unclassified. (Commissioner not engaged.)	Mar. 1	July 1	38	
Meyer Furnace Co., Peoria, Ill.	Controversy	Molders.	Open-shop conditions introduced.	Pending.	June 27		35	90
Strawbridge & Clothier, Philadelphia, Pa.	Strike	Lathers and bricklayers.	Jurisdiction.	Adjusted. Agreed on jurisdiction.	June 1	June 12	150	
American Sales Book Co. Elmira, N. Y.	Lockout	Stereotypers.	Proposed agreement not acceptable.	Pending.	June 25		12	275
American Sales Book Co., Niagara Falls, N. Y.	do.	do.	do.	do.	do.		25	750
Glabman Bros., Chicago, Ill.	Strike	Upholsterers.	Discharges for union affiliation.	Unclassified. Company agreed not to discriminate and to employ all union men.	May 26	June 9	18	4
Plumbers, Newton, Mass.	do.	Plumbers.	Asked 5-day week with same pay as for 5½-day week.	Adjusted. Allowed 5-day week and \$12 per day.	June 2	June 27	59	
Septum Shoe Co., Brooklyn, N. Y.	Threatened strike.	Shoe workers.	Asked union recognition.	Pending.	June 26		135	2,700
Steamfitters and plumbers, Allentown, Bethlehem, and Easton, Pa.	Strike.	Plumbers and steamfitters.	Asked 5-day week and increase.	Adjusted. Allowed 5-day week; no increase.	June 30	July 10	150	
Total							8,987	7,803

Industrial Disputes and Lost Time in New South Wales, 1929

FOLLOWING its usual custom the Government of New South Wales published in its official organ, the Industrial Gazette, a review of the industrial dislocations of the year 1929, which appeared in its issue for February 28, 1930. In addition to considering the industrial disputes of the year, with their causes, time lost, number of workers involved and methods of settlement, data are given as to the time lost through other causes, such as trade conditions, mine disabilities, shortage of trucks, and the like. The term "industrial dispute" is used to cover any stoppage, whether a strike or a lock-out, which occasioned a loss of time, even though the time lost might be very little. Account is kept, however, only of time which might have been worked; that is, holidays and other occasions on which the workers would normally have been unemployed are not included in the figures for time lost. The heading "number of workers involved" covers all who were rendered idle by the dispute, whether or not they were directly concerned in it.

During the year ending December 31, 1929, there were 330 new disputes, distributed among the industrial groups as follows:

NUMBER OF INDUSTRIAL DISPUTES, WORKERS INVOLVED, AND WORKING-DAYS LOST, IN 1929, BY INDUSTRY

Industry group	Number of disputes	Number of workers involved	Number of working-days lost
Building.....	2	483	4,023
Domestic and personal service.....	1	6	12
Stationary engineers.....	1	258	645
Laborers.....	5	3,461	681,786
Manufacturing.....	15	1,321	7,427
Mining, coal, and shale.....	295	89,636	2,472,233
Mining, metalliferous.....	5	5,056	19,542
Pastoral and rural.....	1	9	18
Professional and shopworkers.....	2	9	204
Transport, land.....	1	250	23,750
Transport, sea.....	2	187	111
Total.....	330	100,676	3,209,761

These figures form a considerable contrast to those for 1928, when, with 276 disputes involving almost the same number of workers—100,937—the time lost amounted to only 470,546 workdays. (See Labor Review, July, 1929, p. 154.) The great loss of time in 1929 was due mainly to two disputes, one among the timber workers who are included with laborers in the above table, which involved 3,300 workers and caused a loss of 681,338 workdays, and one in the coal mining industry which, beginning on March 1, involved 10,228 workers, occasioned a loss of 2,300,772 workdays, and was still unsettled at the close of the year. Of the total loss of time 77 per cent was due to disputes in the coal and shale mining industry, and 21.2 per cent to the timber dispute, leaving less than 3 per cent for all other disagreements.

The proportion of lost time due to the mining industry was unusually large in 1929, but nevertheless that industry generally stands well forward in the number and duration of its industrial disputes. The following table shows the number and percentage of working-days lost in the principal industries during the 16-year period 1914–1929.

TIME LOST IN INDUSTRIAL DISPUTES, 1914 TO 1929

Industry	Number of working-days lost	Per cent of total days lost
Mining:		
Coal and shale.....	10,667,015	53.9
Metal, etc.....	3,402,972	17.2
Total.....	14,069,987	71.1
Nonmining:		
Manufacturing.....	2,423,422	12.3
Transport—		
Sea.....	1,550,179	7.7
Land.....	116,888	.6
Building.....	663,026	3.3
Laboring.....	838,294	4.3
Other.....	138,685	.7
Total.....	5,730,494	28.9
Total all industries.....	19,800,481	100.0

It will be seen that the principal differences between the figures for 1929 and those for the 16-year period are that last year the coal-mining industry was responsible for more than its usual proportion of the working-days lost, and that the disagreement in the timber-working industry brought the loss of time among the laborers up to a wholly abnormal percentage.

Causes of Disputes

INDUSTRIAL disputes, it is pointed out, are often due to several causes, some one of which may involve more truly than the others the real point at issue. In the following table the disputes are classified according to what is believed to have been the principal cause.

NUMBER OF DISPUTES, WORKERS INVOLVED, AND WORKING-DAYS LOST, IN 1929, BY CAUSE OF DISPUTE

Cause of dispute	Disputes		Workers involved		Working days lost	
	Number	Per cent	Number	Per cent	Number	Per cent
Wages.....	50	15.1	20,372	20.2	2,341,079	72.9
Hours.....	16	4.9	7,038	7.0	689,246	21.5
Working conditions.....	100	30.3	23,228	23.1	57,410	1.8
Employment, etc.....	70	21.2	13,049	13.0	53,136	1.6
Trade-unionism.....	13	3.9	3,989	3.9	15,716	.5
Miscellaneous.....	30	11.9	21,086	21.0	31,285	1.0
Not stated.....	42	12.7	11,914	11.8	21,889	.7
Total.....	330	100.0	100,676	100.0	3,209,761	100.0

Here, again, the situation differs from that of 1928, when working conditions accounted for a greater loss of time (35.3 per cent) than any other cause, questions of employment stood second with 26.2 per cent, wages came third with 18.3 per cent, and only 5.3 per cent was due to disagreements over hours. The most important dispute of 1929, that of the northern coal fields, was over a question of wages—"Men opposed proposed reduction in wages and were given 14 days'

notice"—and the next in importance, the stoppage in the timber industry, was caused by dissatisfaction over an award concerning hours.

As to methods by which settlement of these disputes was attempted, direct negotiation between the interested parties was used in 290 cases, or 88 per cent of the total; arbitration in 7 cases, replacement of the workers in 5, and other methods in 28. At the close of the year, 6 disagreements remained unsettled; these involved 11,706 workers, and had at that time caused the loss of 2,346,512 working-days.

Time Lost in Mining Industry through Causes Other Than Industrial Disputes

IN THE mining industry, so far as the coal and shale mining branch is concerned, careful data are given as to the time lost from all causes. The following table shows the relative importance of the different causes, for the year 1929 and for the period 1917-1929:

WORKING-DAYS LOST IN COAL AND SHALE MINES, 1917-1929 AND IN 1929, BY CAUSE

Cause	Days lost, 1917-1929		Days lost, 1929	
	Number	Per cent	Number	Per cent
Industrial disputes.....	8,715,142	41.0	2,472,233	76.7
Other causes:				
Shortage of trucks.....	602,211	2.8	20,552	.6
Slackness of trade.....	8,559,685	40.3	477,734	14.8
Mine disabilities, etc.....	1,157,666	5.4	88,054	2.7
Deaths and funerals of employees, etc.....	233,782	1.1	5,762	.2
Meetings, extra holidays.....	215,905	1.0	15,579	.5
Other.....	357,235	1.7	20,080	.6
Not stated.....	1,406,021	6.7	124,104	3.8
Total other causes.....	12,532,505	59.0	751,865	23.2
Total all causes.....	21,247,647	100.0	3,224,098	100.0

The abnormal amount of time lost in 1929 through industrial disputes shows very clearly in this table. For the period 1917-1928, the time lost through industrial disputes was 34.6 per cent of the total, and time lost through slackness of trade was 44.8 per cent. (See Labor Review, July, 1929, p. 156.) But the two great disputes of 1929 increased the proportion for industrial disputes for the whole period as well as for the single year, making this cause responsible for over three-quarters of the whole time lost in 1929.

HOUSING

Building Permits in Principal Cities, June, 1930

BUILDING permit reports have been received by the Bureau of Labor Statistics of the United States Department of Labor from 289 comparable cities for the months of May and June, 1930. The costs shown in the tables below are for buildings in the corporate limits of the cities enumerated. No land costs are included.

The States of Illinois, Massachusetts, New Jersey, New York, and Pennsylvania, through their departments of labor, are cooperating with the Bureau of Labor Statistics in the collection of this information.

Table 1 shows the estimated cost of new residential buildings, new nonresidential buildings, and total building operations in 289 cities of the United States having a population of 25,000 or over, by geographical divisions.

TABLE 1.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL BUILDING OPERATIONS IN 289 CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER, BY GEOGRAPHIC DIVISIONS

Geographic division	New residential buildings				New nonresidential buildings, estimated cost		Total construction (including alterations and repairs), estimated cost	
	Estimated cost		Families provided for in new dwelling houses					
	May, 1930	June, 1930	May, 1930	June, 1930	May, 1930	June, 1930	May, 1930	June, 1930
New England.....	\$4,611,918	\$3,795,370	844	613	\$5,787,472	\$7,082,170	\$12,949,258	\$13,634,102
Middle Atlantic.....	10,171,383	21,135,300	4,017	4,411	29,640,042	29,784,549	61,009,402	60,183,633
East North Central.....	14,268,712	12,363,530	2,491	1,751	21,396,591	17,839,018	40,239,044	34,095,665
West North Central.....	3,098,050	2,124,405	724	565	7,121,620	8,193,116	11,839,894	12,290,850
South Atlantic.....	2,776,714	3,537,775	576	717	6,357,938	4,208,832	11,698,887	9,689,301
South Central.....	3,912,667	3,701,152	1,128	1,240	9,302,285	4,989,606	14,627,250	10,023,780
Mountain and Pacific.....	10,256,898	7,366,951	2,706	2,006	7,590,506	7,250,861	20,693,435	17,976,960
Total.....	58,096,342	54,024,483	12,486	11,393	87,196,460	79,348,152	173,057,170	157,894,291
Per cent of change.....		-7.0		-8.8		-9.0		-8.8

In the 289 cities from which reports were received for the months of May and June there was a decrease of 8.8 per cent in the estimated expenditures for total building operations, comparing June permits issued with May permits issued. There was an estimated expenditure of \$157,894,291 during the month of June and \$173,057,170 during the month of May. Residential buildings decreased 7.0 per cent in these cities, while nonresidential buildings decreased 9.0 per cent. There were 11,393 families provided with dwelling places in new buildings in these cities during the month of June, which was a decrease of 8.8 per cent from the 12,486 families provided for during the month of May.

Increases in total building operations were shown in the New England and West North Central States. Decreases were shown

in the Middle Atlantic, East North Central, South Atlantic, South Central, and Mountain and Pacific States. Increases in new residential buildings were registered in the Middle Atlantic and South Atlantic States. The other geographic divisions showed decreases in this class of building. Increases in indicated expenditures for nonresidential buildings were shown in the New England, Middle Atlantic, and West North Central States. Decreases were shown in the other four divisions.

Increases in the number of families provided for in new buildings were shown in the Middle Atlantic, South Atlantic, and South Central States.

Table 2 shows the estimated cost of additions, alterations, and repairs as shown by permits issued, together with the percentage of increases or decreases in June as compared with May, by geographical divisions.

TABLE 2.—ESTIMATED COST OF ADDITIONS, ALTERATIONS, AND REPAIRS IN CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER, BY GEOGRAPHIC DIVISIONS

Geographic division	Estimated cost		Per cent of increase or decrease, June, compared with May
	May, 1930	June, 1930	
New England.....	\$2, 549, 868	\$2, 756, 562	+8. 1
Middle Atlantic.....	12, 197, 977	9, 263, 784	-24. 1
East North Central.....	4, 573, 741	3, 893, 117	-14. 9
West North Central.....	1, 620, 218	1, 973, 329	+21. 8
South Atlantic.....	2, 564, 235	1, 942, 694	-24. 2
South Central.....	1, 412, 298	1, 333, 022	-5. 6
Mountain and Pacific.....	2, 846, 031	3, 359, 148	+18. 2
Total.....	27, 764, 368	24, 521, 656	-11. 7

During the month of June building permits were issued in the 289 cities from which reports were received for repairs and alterations to old buildings to cost \$24,521,656, which is a decrease of 11.7 per cent compared with the \$27,764,368 spent during May. Increases in indicated expenditures were registered in the New England, West North Central, and Mountain and Pacific States. Decreases in alterations and repairs were shown in the Middle Atlantic, East North Central, South Atlantic, and South Central States.

Table 3 shows index numbers of families provided for and the index numbers of indicated expenditures for residential buildings, for nonresidential buildings, for alterations and repairs, and for total building operations. These indexes are worked on the chain system with the monthly average of 1929 equaling 100.

TABLE 3.—INDEX NUMBER OF FAMILIES PROVIDED FOR; ESTIMATED COSTS OF NEW RESIDENTIAL BUILDINGS; NEW NONRESIDENTIAL BUILDINGS; ALTERATIONS AND REPAIRS; AND TOTAL BUILDING OPERATIONS AS SHOWN BY PERMITS ISSUED IN 289 CITIES OF THE UNITED STATES HAVING A POPULATION OF 25,000 OR OVER. (MONTHLY AVERAGE 1929=100)

Month	Families provided for	Cost of new residential buildings	Cost of new non-residential buildings	Cost of additions, alterations, and repairs	Total cost of all building operations
1929					
September.....	70.2	63.7	81.3	95.0	73.7
October.....	64.4	61.6	107.9	115.2	85.7
November.....	51.7	44.8	89.6	95.2	68.1
December.....	35.9	30.2	74.3	66.1	51.7
1930					
January.....	34.2	29.4	64.3	55.1	46.1
February.....	43.0	34.7	51.8	57.5	44.1
March.....	57.1	47.2	87.1	77.5	66.4
April.....	62.0	51.0	100.1	81.8	73.8
May.....	59.6	48.5	90.7	84.5	69.3
June.....	54.4	45.1	82.5	74.6	63.3

The index number of families provided for stood at 54.4 for the month of June. This is the lowest point since February, 1930. The index number of indicated expenditures for new residential buildings also showed a recession for the month of June, the June figure being 45.1. The nonresidential building index number was 82.5 for the month of June, this being less than for any month since February. The figure for additions, alterations, and repairs was 74.6 and for total building operations 63.3. The index number for total building operations is lower than for any month since the compilation of such figures by the bureau, except for the months of December, 1929, and January and February, 1930. The chart on page 145 shows in graphic form the indicated expenditures for residential buildings, nonresidential buildings, and total building operations.

Table 4 shows the estimated cost of new residential buildings, new nonresidential buildings, total building operations (including alterations and repairs), and number of families provided for, in each of the 289 cities from which reports were received for both May and June.

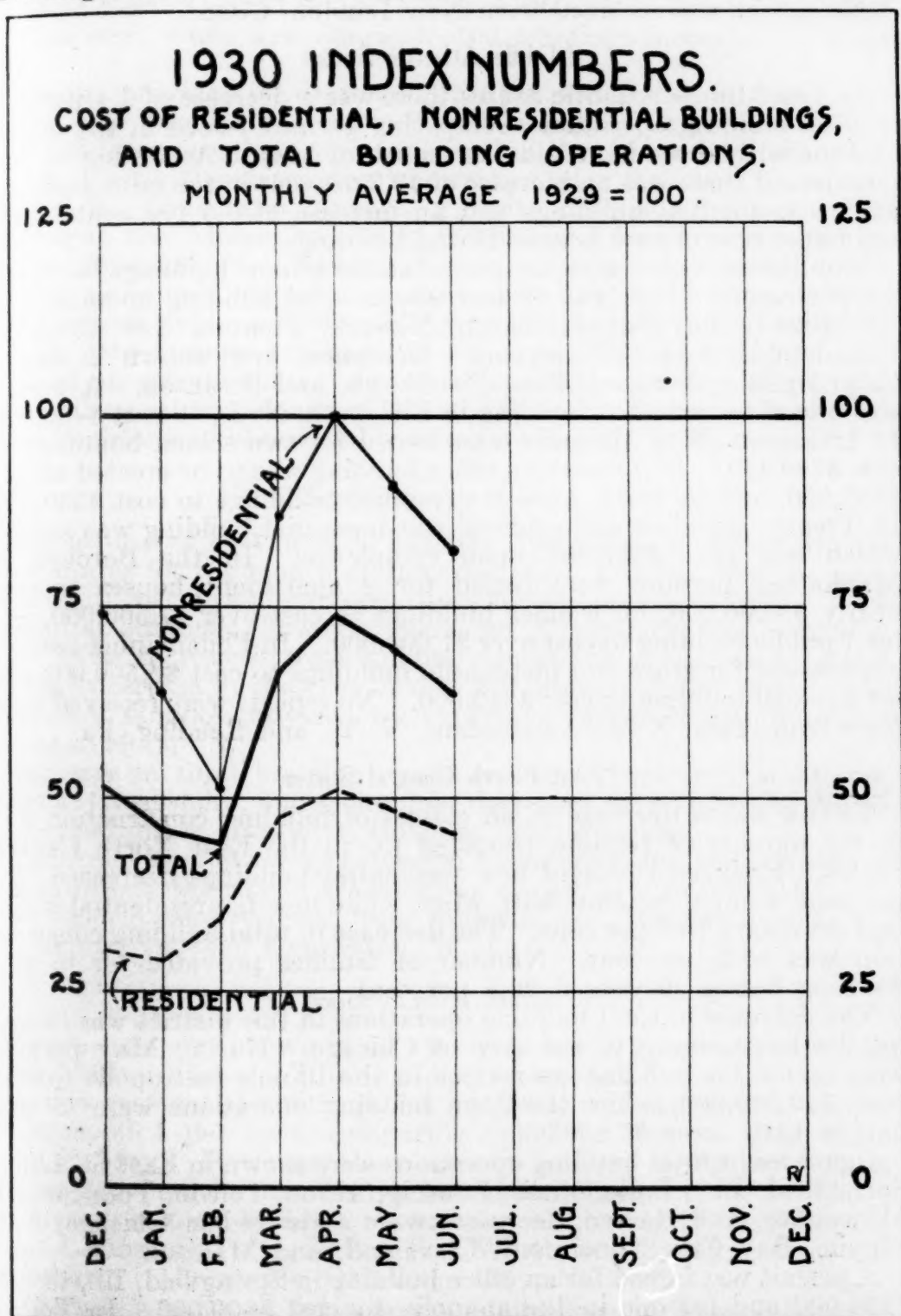
Totals and percentages of increase or decrease in expenditures for each class of building and for families provided for are shown by geographic division. Reports were received from 48 cities in the New England States; 63 cities in the Middle Atlantic States; 71 cities in the East North Central States; 21 cities in the West North Central States; 31 cities in the South Atlantic States; 28 cities in the South Central States; 27 cities in the Mountain and Pacific States.

New England States

THERE was an increase of 5.3 per cent in total expenditures for all building operations in the New England States, comparing June permits with those issued in May. Residential buildings decreased 17.7 per cent, while nonresidential buildings increased 22.4 per cent. The number of families provided for decreased 27.4 per cent.

Large increases in total building operations were shown in Hartford, New Haven, Holyoke, Newton, and Newport; decreases were shown in Bridgeport, Boston, Springfield, Worcester, and Providence.

In Hartford, Conn., permits were issued for a school building to cost \$500,000, 2 factory buildings to cost \$250,000, and 3 institutional buildings to cost nearly \$600,000. In New Haven a permit was



issued for a factory building to cost \$176,000, and in Waterbury for an office building to cost nearly \$400,000. In Holyoke, Mass., a permit was issued for an institutional building to cost \$750,000. In Newton, Mass., a school was to be erected to cost \$800,000. In

Pittsfield a permit was issued for a telephone exchange building to cost a quarter million dollars. In Worcester, Mass., a new hospital was to be erected to cost nearly \$500,000.

No report was received from New London, Conn.

Middle Atlantic States

IN THE Middle Atlantic States there was a decrease of 1.4 per cent in total building operations, comparing permits issued in the month of June with those issued in the month of May. According to permits issued there was an increase of 10.2 per cent in the estimated cost of new residential buildings and an increase of 0.5 per cent in the estimated cost of new nonresidential buildings.

Families provided with accommodations in new buildings increased 9.8 per cent. There was an increase in total building operations in the cities of Bayonne, Irvington, Newark, Trenton, New Rochelle, Philadelphia, and Williamsport. Decreases were shown in Jersey City, Buffalo, Yonkers, Erie, Pittsburgh, and Scranton. A permit was issued for an office building in Elizabeth, N. J., to cost \$450,000. In Irvington, N. J., permits were issued for two school buildings to cost \$799,470. In Newark an office building was to be erected to cost \$887,000, and in Perth Amboy two office buildings to cost \$530,000. In Trenton a sailors and soldiers' war memorial building was started which will cost \$607,908 upon completion. In the Borough of Manhattan permits were issued for 8 apartment houses to cost nearly \$5,000,000, for 6 office buildings to cost over \$7,500,000, and for 1 public building to cost over \$1,000,000. In Philadelphia permits were issued for store and mercantile buildings to cost \$5,500,000 and for a school building to cost \$912,000. No reports were received from New Brunswick, N. J., Amsterdam, N. Y., and Reading, Pa.

East North Central States

THERE was a decrease in all classes of building construction and in the number of families provided for in the East North Central States. Estimated cost of new residential buildings decreased 13.4 per cent, comparing June with May, while new nonresidential buildings decreased 16.6 per cent. The decrease in total building construction was 15.3 per cent. Number of families provided for in new dwelling houses decreased 29.7 per cent.

The decrease in total building operations in this district was caused by the large slump in the city of Chicago. During May permits were issued for building operations in the Illinois metropolis to cost over \$12,500,000, while the June building operations were to cost only a little over \$5,000,000.

Increases in total building operations were shown in East St. Louis, Springfield (Ill.), Indianapolis, Lansing, Akron, Toledo, Youngstown, Milwaukee, and Racine; decreases were registered in Chicago, Fort Wayne, Bay City, Cincinnati, Cleveland, and Madison.

A permit was issued for an office building in Springfield, Ill., to cost \$900,000 and for one in Indianapolis to cost \$600,000. In Toledo a permit was issued for a new school building to cost nearly \$1,400,000. A public building was to be erected in Racine to cost \$1,288,000.

No reports were received from Anderson and South Bend, Ind.; Battle Creek and Port Huron, Mich.; Mansfield, Portsmouth, and Zanesville, Ohio.

West North Central States

THERE was an increase of 3.8 per cent in total building operations in the West North Central States. New residential buildings decreased 31.4 per cent, while new nonresidential buildings increased 15.0 per cent.

Families provided for decreased 22.0 per cent in this district, comparing June permits with those issued in May. Large increases in total building operations were registered in Des Moines, Minneapolis, and St. Paul. Decreases were shown in Cedar Rapids, Davenport, Topeka, St. Louis, and Omaha. Permits were issued for an office building in Des Moines to cost \$1,000,000 and for a public building to cost \$195,000. In Wichita, Kans., a permit was issued for a building to be used for public works to cost \$345,000. Permits were issued for two public-school buildings in Minneapolis to cost \$260,000 and for two factory buildings in St. Louis to cost \$950,000. In St. Paul an office building was to be erected, according to permits issued, at an estimated cost of \$2,700,000. A permit was also issued in St. Paul for a public-school building to cost \$180,000.

South Atlantic States

THE estimated cost of total building operations in the South Atlantic States for the month of June decreased 17.2 per cent, as compared with cost of building operations for the month of May. New residential buildings, however, increased 27.4 per cent in estimated costs. The decrease in total building operations was caused by a 33.8 per cent decrease in the cost of new nonresidential buildings. The number of families provided with dwelling places in new buildings increased 24.5.

Increases in total building operations were registered in Miami, Atlanta, Greensboro, and Columbia; decreases were shown in Washington, Baltimore, Charlotte, Roanoke, and Wheeling.

A contract was let for an extension building for the Department of Agriculture, in the city of Washington, to cost over \$2,000,000.

No reports were received from Augusta, Ga., Spartanburg, S. C., Lynchburg, Va., and Charleston, W. Va.

South Central States

DECREASES were shown in all classes of building operations in the South Central States. Total building operations decreased 31.5 per cent; new residential buildings, 5.4 per cent; and new nonresidential buildings, 46.4 per cent, comparing the June permits with those issued in May. However, there was an increase of 9.9 per cent in families provided for in new residential buildings.

Increases in total building operations were shown in the following cities: Lexington, Tulsa, Dallas, Fort Worth, and Houston; decreases were shown in Louisville, Oklahoma City, Nashville, and Austin.

A permit was issued for a new union station in Tulsa, Okla., to cost \$500,000. Permits were issued in Memphis, Tenn., for 2 churches to cost \$232,700 and for school buildings to cost \$136,500. In Houston a permit was issued for a lodge building to cost over \$100,000.

No reports were received from Fort Smith, Ark.; Covington, Ky.; and Galveston and Laredo, Tex.

Mountain and Pacific States

THERE was a decrease of 28.2 per cent in the estimated cost of new residential buildings in the Mountain and Pacific States, a decrease of 4.5 per cent in nonresidential buildings, and a decrease of 13.1 per cent in total building operations. The number of families provided for in this district decreased 22.6 per cent, comparing June with May.

Increases in total building operations were shown in the cities of Pasadena, San Jose, Colorado Springs, and Portland; decreases were shown in Los Angeles, San Francisco, Butte, and Seattle.

Permits were issued for new store buildings to cost over \$500,000 in Los Angeles. In Pasadena, permits were issued for 2 school buildings to cost \$705,000. In Colorado Springs a new church was to be erected at a cost of \$215,000.

No report was received from Vallejo, Calif.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930

New England States

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Connecticut:								
Bridgeport.....	\$78,750	\$126,000	35	28	\$143,978	\$18,528	\$258,073	\$162,663
Greenwich.....	258,000	388,500	14	23	26,750	116,140	375,650	517,715
Hartford.....	143,800	21,600	6	3	50,065	1,474,300	274,312	1,682,261
Meriden.....	25,500	27,700	6	6	14,920	11,064	46,794	46,076
New Britain.....	70,500	30,500	11	5	4,875	20,900	109,950	63,608
New Haven.....	276,000	130,300	93	16	172,500	589,225	499,500	799,340
Norwalk.....	149,850	59,000	20	10	9,750	68,560	187,250	173,610
Stamford.....	48,000	35,500	8	6	108,595	105,225	174,045	172,740
Waterbury.....	39,500	66,000	10	14	124,300	377,900	180,000	499,550
Maine:								
Bangor.....	27,500	19,400	6	6	3,550	6,375	35,200	28,625
Lewiston.....	10,000	13,000	2	3	26,000	12,200	38,000	25,200
Portland.....	36,300	112,010	8	30	80,365	16,065	159,861	159,937
Massachusetts:								
Boston ¹	727,800	490,660	165	112	930,842	361,510	2,532,277	1,520,393
Brockton.....	22,900	32,500	6	5	14,230	32,955	52,172	75,368
Brookline.....	467,000	171,000	28	9	54,205	18,250	593,810	229,723
Cambridge.....	109,643	123,500	14	7	109,800	43,925	296,846	215,516
Chelsea.....	0	0	0	0	32,100	1,100	36,540	6,535
Chicopee.....	25,000	26,700	7	9	6,385	47,400	38,385	80,575
Everett.....	24,000	26,400	7	8	19,000	35,700	58,110	67,800
Fall River.....	12,600	24,200	4	5	179,196	22,720	206,020	159,065
Fitchburg.....	6,800	22,000	2	4	2,920	29,830	10,770	58,530
Haverhill.....	15,000	14,875	6	5	16,100	10,165	41,400	31,500
Holyoke.....	21,500	11,500	2	2	8,100	754,925	41,250	777,675
Lawrence.....	0	20,500	0	6	12,275	13,400	48,625	63,650
Lowell.....	33,100	9,000	7	2	5,050	7,275	54,000	37,039
Lynn.....	42,000	25,700	10	6	22,555	170,247	117,465	271,977
Malden.....	64,500	33,000	12	7	7,620	2,230	88,940	49,765
Medford.....	114,500	133,800	22	23	14,335	9,990	141,841	155,520
New Bedford.....	6,800	7,500	1	1	54,100	228,100	95,000	248,125
Newton.....	358,100	335,300	33	32	12,705	879,800	420,590	1,333,367
Pittsfield.....	141,750	76,500	24	17	35,680	277,375	199,603	359,425
Quincy.....	73,625	88,600	16	22	324,925	129,129	442,661	252,241
Revere.....	23,400	28,700	7	7	3,480	4,365	38,230	50,995
Salem.....	18,000	47,500	3	9	23,225	19,450	65,795	138,045
Somerville.....	46,000	18,000	15	4	42,050	7,900	100,185	55,254
Springfield.....	160,900	79,500	40	22	96,790	194,050	409,765	312,550
Taunton.....	12,100	13,000	2	2	17,750	2,220	66,444	367,215
Waltham.....	47,400	62,900	10	14	4,610	33,425	88,560	102,400
Watertown.....	39,000	55,000	8	11	118,225	82,100	163,175	138,200
Worcester.....	227,500	204,800	46	22	945,737	522,847	1,211,337	853,846
New Hampshire:								
Manchester.....	35,100	40,435	17	12	7,880	5,095	61,381	55,950

¹ Applications filed.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930—Continued

New England States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Rhode Island:								
Central Falls.....	\$4,000	\$5,500	1	2	\$4,550	\$17,580	\$10,500	\$40,580
Cranston.....	117,600	68,800	35	16	17,235	18,245	138,675	90,765
East Providence.....	70,300	93,700	14	15	29,890	12,740	138,696	121,878
Newport.....	34,400	152,150	6	4	54,030	7,120	112,430	162,170
Pawtucket.....	78,300	33,500	18	9	47,120	18,990	182,900	72,890
Providence.....	264,300	179,200	35	29	1,725,050	234,025	2,280,770	754,175
Woonsocket.....	3,300	10,000	2	3	19,100	9,510	25,475	52,075
Total.....	4,611,918	3,795,370	844	613	5,787,472	7,082,170	12,949,258	13,634,102
Per cent of change.....		-17.7		-27.4		+22.4		+5.3

Middle Atlantic States

New Jersey:								
Atlantic City.....	0	\$18,900	0	4	\$17,890	\$53,410	\$63,110	\$85,355
Bayonne.....	\$79,000	48,000	46	25	300	157,400	91,300	213,300
Bloomfield.....	164,000	55,000	26	12	11,000	9,000	182,000	73,000
Camden.....	4,000	60,000	1	6	347,475	30,575	422,215	112,100
Clifton.....	149,500	60,500	34	14	24,675	8,350	183,825	74,285
East Orange.....	9,000	9,000	8	2	532,280	47,207	586,965	93,187
Elizabeth.....	160,000	97,000	50	24	111,000	489,000	271,000	613,000
Hoboken.....	0	20,000	0	2	15,000	0	35,267	36,290
Irrington.....	65,550	44,000	15	10	40,220	811,155	115,525	863,670
Jersey City.....	25,500	15,000	6	3	1,830,900	47,742	1,910,900	166,717
Kearny.....	63,000	34,500	17	9	6,025	68,287	72,775	105,222
Montclair.....	93,000	69,500	5	9	20,000	50,515	144,028	145,625
Newark.....	266,000	131,500	52	22	150,630	1,038,665	719,435	1,355,864
Orange.....	5,000	0	1	0	3,945	3,950	86,642	35,430
Passaic.....	0	8,000	0	1	64,400	15,350	108,345	46,001
Paterson.....	53,500	53,200	12	11	130,780	81,160	276,116	200,229
Perth Amboy.....	12,800	24,000	3	4	10,110	560,900	36,136	607,750
Plainfield.....	63,000	134,205	7	13	9,200	21,100	97,100	181,295
Trenton.....	36,800	41,000	5	14	28,325	693,423	86,821	750,563
Union City.....	0	0	0	0	19,200	1,600	33,210	14,930
West New York.....	0	0	0	0	1,000	550	5,800	9,485
New York:								
Albany.....	293,000	173,000	25	25	79,712	346,050	457,724	681,363
Auburn.....	24,200	28,500	6	6	9,280	29,870	36,055	63,065
Binghamton.....	46,200	39,360	12	6	35,303	8,475	128,190	119,564
Buffalo.....	278,375	550,700	80	160	747,961	355,824	1,177,016	982,979
Elmira.....	28,675	25,800	3	3	7,758	7,376	86,097	73,201
Jamestown.....	48,962	45,100	12	10	40,755	4,900	116,227	77,814
Kingston.....	17,800	19,400	3	3	3,010	225,705	36,558	253,529
Mount Vernon.....	95,000	223,000	10	23	58,650	42,900	357,120	298,455
Newburgh.....	15,000	0	3	0	39,062	5,800	60,912	111,975
New Rochelle.....	138,011	319,600	9	21	134,332	433,061	340,473	776,986
New York City—								
The Bronx ¹	2,708,600	2,824,000	612	647	825,000	765,930	4,402,920	4,653,085
Brooklyn ¹	2,754,800	3,154,400	648	699	5,473,585	1,916,780	9,255,560	6,093,230
Manhattan ¹	2,086,000	4,895,000	306	1,056	10,415,800	9,550,280	18,126,130	16,971,675
Queens ¹	4,677,610	4,436,350	1,305	916	1,079,806	1,361,726	6,290,969	6,191,411
Richmond ¹	340,140	213,800	53	62	273,845	204,032	717,295	489,206
Niagara Falls.....	103,550	132,800	26	29	127,236	83,412	441,820	259,096
Poughkeepsie.....	48,500	22,000	6	3	4,275	1,800	82,050	62,900
Rochester.....	155,000	227,848	29	50	264,458	60,035	600,510	459,666
Schenectady.....	93,300	98,300	21	16	92,450	147,900	267,450	287,800
Syracuse.....	242,200	225,500	43	37	154,475	190,750	475,625	497,835
Troy.....	77,400	49,700	15	8	142,050	31,425	236,720	100,850
Utica.....	70,000	47,300	12	5	21,260	42,100	111,445	97,475
Watertown.....	6,500	14,700	1	4	3,985	2,605	37,089	42,507
White Plains.....	574,700	158,000	14	12	33,250	361,650	770,225	529,985
Yonkers.....	279,200	279,750	35	32	265,647	114,025	576,212	415,775

¹ Applications filed.

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930—Continued

Middle Atlantic States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Pennsylvania:								
Allentown.....	\$108,000	\$113,000	10	15	\$24,600	\$19,100	\$155,450	\$195,848
Altoona.....	67,410	64,450	13	14	76,845	41,787	179,513	135,050
Bethlehem.....	39,700	66,200	7	15	10,925	45,320	79,070	137,695
Butler.....	3,500	10,900	1	4	250	2,000	6,150	13,150
Chester.....	15,100	0	5	0	8,525	257,774	45,325	266,474
Easton.....	0	6,500	0	1	33,840	38,525	80,116	59,233
Erie.....	90,100	82,500	25	20	673,235	32,690	1,001,397	339,310
Harrisburg.....	59,000	57,000	4	6	46,205	62,825	188,605	163,750
Hazleton.....	4,500	28,387	1	2	18,622	4,936	35,588	47,285
Johnstown.....	20,800	0	4	0	97,400	11,915	136,440	21,815
Lancaster.....	39,500	179,000	5	4	9,980	3,065	71,285	198,510
McKeesport.....	70,000	42,300	13	10	125,645	43,525	226,475	124,440
New Castle.....	50,300	24,250	7	5	4,810	2,350	64,090	31,605
Norristown.....	43,500	32,500	4	6	37,335	439,606	98,834	484,321
Philadelphia.....	1,033,400	442,000	175	101	2,662,325	7,643,505	4,298,190	8,643,760
Pittsburgh.....	784,400	699,650	146	159	1,257,825	362,915	2,346,482	2,397,226
Scranton.....	224,700	31,800	7	9	603,400	47,850	883,468	95,975
Wilkes-Barre.....	4,600	36,150	1	9	45,664	82,205	80,823	151,453
Wilkesburg.....	34,500	47,500	4	7	4,040	2,900	72,587	60,268
Williamsport.....	20,000	25,000	5	3	8,196	85,941	39,951	139,506
York.....	9,000	19,000	3	3	183,075	70,065	202,656	102,144
Total.....	19,171,383	21,135,300	4,017	4,411	29,640,042	29,784,549	61,009,402	60,183,633
Per cent of change.....		+10.2		+9.8		+0.5		-1.4

East North Central States

Illinois:								
Alton.....	\$42,985	\$14,440	12	4	\$8,255	\$9,115	\$72,375	\$38,703
Aurora.....	30,760	26,785	6	6	27,877	44,870	73,374	90,560
Belleville.....	86,000	37,000	20	8	33,485	1,025	120,185	40,775
Bloomington.....	25,000	56,000	6	8	6,500	17,500	34,500	88,500
Chicago.....	3,394,200	1,319,100	414	167	8,444,200	3,224,600	12,660,957	5,180,315
Cicero.....	97,300	67,000	10	10	2,924	168,410	117,304	246,460
Danville.....	14,500	6,600	6	2	1,475	0	46,975	16,185
Decatur.....	53,450	99,200	13	19	261,950	139,540	326,800	247,940
East St. Louis.....	109,600	33,080	27	14	31,300	277,525	152,540	313,980
Elgin.....	46,100	52,950	9	11	62,180	26,105	125,767	89,121
Evanston.....	153,000	20,000	6	1	38,500	97,000	253,200	174,000
Joliet.....	67,000	11,500	9	2	108,725	218,800	232,425	268,450
Moline.....	45,300	48,900	9	10	123,575	5,910	187,428	117,060
Oak Park.....	35,000	25,500	3	3	5,300	216,500	47,725	261,300
Peoria.....	258,100	164,200	50	34	259,235	199,300	584,570	414,470
Quincy.....	47,050	27,000	13	7	52,329	207,310	106,729	235,610
Rockford.....	104,400	109,000	29	27	455,475	115,390	596,550	275,675
Rock Island.....	72,200	28,800	20	11	5,258	4,440	178,765	112,467
Springfield.....	75,200	40,650	14	10	187,945	906,245	321,355	1,071,288
Indiana:								
East Chicago.....	42,421	5,600	8	1	833,249	106,371	915,707	138,196
Elkhart.....	12,300	13,500	4	2	4,349	49,673	33,414	71,552
Evansville.....	67,050	77,200	20	17	15,400	2,875	100,906	134,438
Fort Wayne.....	212,600	163,350	41	27	130,000	35,640	434,920	216,080
Gary.....	59,850	73,600	17	24	13,460	30,150	98,115	141,650
Hammond.....	60,700	69,500	14	17	60,722	33,035	140,650	117,608
Indianapolis.....	339,300	285,750	60	53	161,101	800,922	611,914	1,175,177
Kokomo.....	9,900	2,900	2	2	1,295	585	33,485	4,510
Marion.....	9,000	2,000	2	2	19,400	41,775	43,475	50,420
Muncie.....	31,400	27,047	3	8	3,480	3,841	48,646	45,361
Richmond.....	26,800	13,400	8	8	20,500	13,050	56,859	35,800
Terre Haute.....	17,300	44,450	5	6	79,645	7,890	103,945	61,102
Michigan:								
Bay City.....	31,200	19,000	8	5	101,325	10,725	243,665	53,843
Detroit.....	2,582,274	2,752,050	552	409	1,926,557	1,636,643	5,024,392	5,103,077
Flint.....	322,530	146,239	71	36	537,541	35,796	917,386	220,125
Grand Rapids.....	89,500	94,100	24	21	252,945	60,480	432,785	233,900
Hamtramck.....	7,000	12,000	2	2	77,165	12,920	107,895	47,580

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930—Continued

East North Central States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Michigan—Contd.								
Highland Park.....	0	\$307,800	0	2	\$19,975	\$5,000	\$22,650	\$312,800
Jackson.....	\$42,200	27,000	11	5	9,035	18,115	65,276	65,395
Kalamazoo.....	45,500	64,500	10	12	23,899	46,315	95,980	192,410
Lansing.....	75,350	59,439	18	12	33,145	67,705	134,785	180,564
Muskegon.....	30,500	34,000	10	11	106,885	19,460	160,233	53,460
Pontiac.....	22,400	3,500	6	2	9,575	17,675	39,650	25,915
Saginaw.....	67,647	45,900	25	12	136,449	16,807	236,743	86,313
Ohio:								
Akron.....	1,263,280	1,698,900	59	42	344,641	403,179	1,723,924	2,154,722
Ashtabula.....	16,800	4,750	5	2	9,370	8,115	32,860	16,330
Canton.....	44,000	48,900	9	7	26,792	61,750	92,052	130,140
Cincinnati.....	824,640	1,441,050	123	136	2,856,995	446,685	3,835,975	2,014,065
Cleveland.....	736,800	305,500	148	65	757,600	1,415,400	2,211,550	2,035,925
Columbus.....	182,600	373,400	32	66	52,300	578,500	295,550	1,035,000
Dayton.....	101,700	47,700	21	9	238,919	92,827	412,343	191,447
East Cleveland.....	9,000	456,000	2	34	10,640	1,690	21,400	464,640
Hamilton.....	61,150	37,300	14	7	269,081	11,900	362,236	59,655
Lakewood.....	110,300	176,500	30	40	32,050	12,995	147,440	191,645
Lima.....	4,000	5,000	1	1	54,275	1,665	70,485	9,740
Lorain.....	40,300	18,100	12	5	102,265	10,850	151,055	37,530
Marion.....	3,500	0	1	0	7,330	15,590	12,530	16,050
Newark.....	21,800	6,400	6	3	2,280	3,425	25,875	12,925
Springfield.....	29,500	33,500	8	10	79,835	37,610	121,780	79,010
Steubenville.....	44,800	19,200	12	6	2,025	178,825	50,275	201,800
Toledo.....	206,900	72,880	59	18	59,720	1,451,375	382,065	1,609,885
Warren.....	23,650	6,140	8	3	61,590	18,445	105,090	38,730
Youngstown.....	89,450	108,580	20	25	55,050	524,335	182,640	719,385
Wisconsin:								
Fond du Lac.....	6,800	2,000	2	1	2,415	25,275	21,156	42,745
Green Bay.....	57,000	54,200	17	13	101,390	156,775	177,840	269,431
Kenosha.....	60,000	50,100	6	7	18,150	121,000	103,137	194,810
Madison.....	314,350	163,250	14	31	135,807	33,320	480,227	223,060
Milwaukee.....	907,275	470,900	254	125	915,506	1,881,141	2,118,200	2,584,693
Oshkosh.....	13,700	77,550	4	9	5,370	15,973	46,527	104,388
Racine.....	64,650	78,900	10	19	102,725	1,319,100	183,026	1,420,330
Sheboygan.....	50,300	53,300	10	11	393,665	61,855	492,466	134,784
Superior.....	18,600	22,000	7	6	5,220	4,295	36,340	52,665
Total.....	14,268,712	12,363,530	2,491	1,751	21,396,591	17,839,018	40,239,044	34,095,665
Per cent of change.....		-13.4		-29.7		-16.6		-15.3

West North Central States

Iowa:								
Burlington.....	\$18,000	\$32,000	3	5	\$1,700	\$1,900	\$32,900	\$43,660
Cedar Rapids.....	18,700	18,400	4	4	493,165	86,223	531,953	138,330
Council Bluffs.....	4,000	5,000	1	2	52,000	149,000	99,000	168,000
Davenport.....	143,650	50,300	26	12	79,460	10,378	240,627	95,872
Des Moines.....	61,200	92,850	14	15	189,104	1,296,614	288,072	1,414,879
Dubuque.....	29,000	12,300	8	4	10,550	9,765	48,110	54,863
Ottumwa.....	3,000	14,400	1	4	3,150	100,250	6,400	123,450
Sioux City.....	61,000	42,300	16	12	94,185	105,895	345,570	158,536
Waterloo.....	100,725	20,100	34	6	182,335	9,100	297,030	39,300
Kansas:								
Kansas City.....	45,100	36,250	21	18	119,505	79,955	174,165	126,700
Topeka.....	28,700	68,100	9	15	310,849	30,420	347,094	106,795
Wichita.....	165,955	183,710	63	46	382,252	416,600	617,968	700,325
Minnesota:								
Duluth.....	25,705	23,500	7	8	24,495	17,115	197,700	133,548
Minneapolis.....	670,345	376,375	131	134	347,005	891,855	1,395,125	1,792,700
St. Paul.....	248,820	234,120	36	48	1,387,928	3,018,512	1,758,367	3,452,182
Missouri:								
Joplin.....	28,000	23,000	3	7	125,700	67,800	217,900	103,000
Kansas City.....	446,500	201,000	158	51	1,465,450	382,500	2,005,850	819,850
St. Joseph.....	21,500	16,750	6	6	15,063	4,720	63,063	27,320
St. Louis.....	769,600	378,000	159	95	1,205,620	1,377,879	2,201,856	2,107,466

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930—Continued

West North Central States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Nebraska:								
Lincoln.....	\$79,350	\$137,300	8	25	\$332,150	\$26,125	\$416,760	\$195,215
Omaha.....	129,200	158,650	16	48	299,940	110,510	554,364	488,865
Total.....	3,098,050	2,124,405	724	565	7,121,626	8,193,116	11,839,894	12,290,650
Per cent of change.....		-31.4		-22.0		+15.0		+3.8

South Atlantic States

Delaware:								
Wilmington.....	\$99,500	\$168,100	15	32	\$209,100	\$40,350	\$421,151	\$256,700
District of Columbia:								
Washington.....	941,650	898,950	133	153	3,437,527	2,277,670	4,860,874	3,492,290
Florida:								
Jacksonville.....	26,500	30,100	9	15	22,845	21,105	135,730	119,795
Miami.....	37,400	37,200	10	8	67,430	131,250	179,595	270,811
Pensacola.....		16,360		8		2,025		26,620
St. Petersburg.....	35,000	82,000	4	6	5,900	5,000	52,500	105,000
Tampa.....	17,650	20,500	13	2	31,561	21,111	80,205	67,032
Georgia:								
Atlanta.....	134,250	127,550	38	76	40,737	214,561	301,876	439,495
Columbus.....	27,000	31,250	8	13	27,100	425	57,930	39,645
Macon.....	24,875	4,750	3	6	2,050	37,525	74,378	78,005
Savannah.....	26,850	17,200	4	5	35,800	12,915	82,900	30,790
Maryland:								
Baltimore.....	486,000	1,035,000	116	228	1,698,600	514,800	3,026,000	2,430,700
Cumberland.....	26,500	15,500	8	4	10,080	14,909	55,270	31,584
Hagerstown.....	18,400	32,000	4	3	8,115	135,914	33,913	168,979
North Carolina:								
Asheville.....	13,400	5,000	2	2	11,875	8,875	37,955	23,780
Charlotte.....	185,000	116,445	55	39	193,411	78,325	424,366	213,951
Durham.....	25,700	75,930	10	8	15,000	0	49,220	86,680
Greensboro.....	16,500	36,000	4	5	3,316	100,255	62,890	149,307
Wilmington.....	22,500	4,500	5	3	300	303,000	27,000	313,400
Winston-Salem.....	51,350	16,800	11	6	52,185	4,590	124,342	43,075
South Carolina:								
Charleston.....	19,168	26,000	6	8	45,150	700	78,136	63,560
Columbia.....	57,800	352,600	13	7	20,800	37,200	105,075	396,090
Greenville.....	38,450	47,500	7	10	0	1,825	103,975	72,780
Virginia:								
Newport News.....	39,600	80,150	13	10	151,894	2,162	262,335	123,171
Norfolk.....	102,386	51,650	25	12	41,240	15,220	158,155	95,170
Petersburg.....	42,100	3,000	7	2	835	240	50,675	3,646
Portsmouth.....	10,050	16,500	3	5	2,265	23,075	30,745	46,150
Richmond.....	90,200	62,400	22	14	102,948	167,050	337,298	304,097
Roanoke.....	91,135	36,850	20	8	75,357	14,208	214,932	55,208
West Virginia:								
Clarksburg.....	800	2,300	1	3	33,180	1,130	40,530	13,070
Huntington.....	40,500	63,000	3	14	2,100	11,200	46,200	74,200
Wheeling.....	28,500	41,050	4	10	9,237	12,242	182,736	81,139
Total.....	2,776,714	3,537,775	576	717	6,357,938	4,208,832	11,698,887	9,689,301
Per cent of change.....		+27.4		+24.5		-33.8		-17.2

South Central States

Alabama:								
Mobile.....	\$44,150	\$37,600	17	15	\$179,415	\$40,680	\$241,275	\$90,623
Montgomery.....	52,700	56,000	23	26	7,475	28,552	84,435	109,862
Arkansas:								
Little Rock.....	52,625	83,600	18	27	18,580	32,475	149,641	186,811

TABLE 4.—ESTIMATED COST OF BUILDINGS FOR WHICH PERMITS WERE ISSUED IN PRINCIPAL CITIES, MAY AND JUNE, 1930—Continued

South Central States—Continued

State and city	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new dwellings		Estimated cost		Estimated cost	
	May	June	May	June	May	June	May	June
Kentucky:								
Lexington.....	\$17,550	\$14,200	10	5	\$37,010	\$135,425	\$73,145	\$182,329
Louisville.....	219,250	173,500	39	27	1,983,975	518,205	2,270,800	798,975
Newport.....	9,000	0	2	0	29,650	2,600	42,450	3,525
Paducah.....	16,800	11,850	11	7	2,750	0	20,650	13,650
Louisiana:								
Baton Rouge.....	15,210	17,375	5	7	63,730	1,962	93,128	36,649
New Orleans.....	111,900	73,750	24	22	26,380	82,750	237,615	226,997
Shreveport.....	53,832	87,273	18	16	9,667	149,095	112,914	354,610
Oklahoma:								
Muskogee.....	10,300	3,000	6	1	3,020	10,850	18,185	13,850
Oklahoma City.....	539,300	446,800	107	173	1,674,116	1,060,751	2,344,366	1,524,301
Okmulgee.....	0	0	0	0	350	425	950	425
Tulsa.....	357,675	256,890	80	62	418,360	725,230	835,840	1,014,585
Tennessee:								
Chattanooga.....	60,365	87,400	21	26	68,083	73,880	206,106	210,304
Knoxville.....	64,560	118,619	20	76	124,613	16,146	205,749	149,316
Memphis.....	485,550	377,000	181	119	282,100	556,660	1,011,010	1,020,760
Nashville.....	112,675	83,400	33	28	1,521,970	116,795	1,657,443	250,940
Texas:								
Austin.....	91,358	93,395	42	46	656,789	88,078	771,964	240,944
Beaumont.....	67,450	71,200	24	18	34,785	20,936	143,625	143,995
Dallas.....	195,425	374,500	83	130	243,423	108,365	560,272	656,752
El Paso.....	116,350	105,700	31	36	131,610	50,548	270,073	177,615
Fort Worth.....	157,150	122,328	45	51	400,921	498,416	638,835	708,128
Houston.....	705,105	668,875	151	184	372,735	543,518	1,099,630	1,259,336
Port Arthur.....	42,700	47,125	19	20	79,930	5,263	146,614	67,352
San Antonio.....	282,420	248,906	109	103	926,315	76,845	1,268,685	441,450
Waco.....	22,067	24,867	8	11	4,133	37,206	37,034	72,700
Wichita Falls.....	9,200	16,000	1	4	400	7,950	84,816	66,996
Total.....	3,912,667	3,701,152	1,128	1,240	9,302,285	4,989,606	14,627,250	10,023,780
Per cent of change.....		-5.4		+9.9		-46.4		-31.5

Mountain and Pacific States

Arizona:								
Phoenix.....	\$171,200	\$133,160	65	66	\$70,745	\$34,880	\$274,770	\$217,770
Tucson.....	114,400	90,100	30	10	25,750	131,540	242,907	255,554
California:								
Alameda.....	24,900	23,250	7	5	3,316	38,800	44,919	77,577
Berkeley.....	216,031	103,700	45	20	6,260	23,713	288,873	197,802
Fresno.....	32,150	24,450	7	5	10,096	50,535	78,681	119,682
Long Beach.....	557,750	507,050	161	141	630,865	419,956	1,263,370	993,690
Los Angeles.....	4,216,009	2,956,537	1,321	993	1,977,024	1,672,166	7,141,950	5,485,138
Oakland.....	511,800	223,600	86	77	207,455	559,835	840,306	871,329
Pasadena.....	212,850	96,445	20	10	53,753	887,561	436,084	1,261,834
Sacramento.....	113,597	73,600	38	16	128,090	47,310	275,516	170,457
San Diego.....	305,450	241,850	104	69	290,230	106,060	637,570	442,543
San Francisco.....	1,159,485	919,149	199	185	1,391,957	980,635	2,857,238	2,202,806
San Jose.....	79,960	39,960	14	9	120,750	408,710	222,520	501,990
Stockton.....	62,800	32,100	26	8	58,800	19,975	175,600	98,979
Colorado:								
Colorado Springs.....	24,050	102,100	6	3	27,140	218,440	64,675	329,923
Denver.....	129,650	258,500	34	69	419,300	353,150	704,100	756,000
Pueblo.....	17,700	10,600	10	5	9,950	7,435	46,225	42,951
Montana:								
Butte.....	10,441	3,940	27	15	196,474	15,216	206,915	19,156
Great Falls.....	51,475	81,600	15	18	4,610	10,600	80,040	132,375
Oregon:								
Portland.....	380,615	272,150	101	48	256,565	405,205	860,995	937,616
Utah:								
Ogden.....	23,750	17,175	10	8	5,810	37,400	34,060	95,575
Salt Lake City.....	226,650	298,250	67	88	113,641	155,450	416,946	496,890
Washington:								
Bellingham.....	17,600	22,000	7	6	66,275	116,115	95,550	144,545
Everett.....	7,800	50,700	6	8	143,890	10,805	175,650	96,020
Seattle.....	1,350,900	551,885	234	151	1,244,575	448,890	2,776,320	1,580,105
Spokane.....	163,975	108,000	42	23	92,550	75,780	300,260	282,474
Tacoma.....	65,000	128,500	24	40	31,635	15,680	151,305	166,185
Total.....	10,256,898	7,366,951	2,706	2,096	7,590,506	7,250,861	20,693,435	17,976,960
Per cent of change.....		-28.2		-22.6		-4.5		-13.1

Building Permits in the Cities of the United States Having a Population of 100,000 or Over, First Half of 1930

SEMIANNUALLY since 1922, the Bureau of Labor Statistics has been presenting data concerning building permits issued in cities of the United States having a population of 100,000 or over. A report was received from each of the 85 cities which fell in this class on July 1, 1928; the Bureau of the Census has made no estimate for either 1929 or 1930. The 1930 census figures are not yet available for all of these cities. These 85 cities all reported last year for the first half of 1929.

The costs given in the table below are as stated by the builder on applying for his permit. They include the cost of the building only. No land costs are included. During the first half of 1929 the estimated cost of building operations for which permits were issued was \$1,570,145,411. Permits were issued for building operations to cost \$736,591,196 during the first 6 months of 1930, which is a decrease of 53.1 per cent compared with the first half of 1929. Residential building fared worse than nonresidential building, the decrease in the former class of structure being 72.7 per cent. Less than a quarter of a billion dollars was spent for new residences during the first half 1930, compared with over nine hundred million during the first 6 months of 1929. New nonresidential buildings decreased only 25.9 per cent, comparing the first half of 1930 with the first half of 1929. During the earlier period \$510,761,272 was spent for this class of structure and during the latter period \$378,270,981. During the first half of 1930, 52,489 families were provided for, which is 63.1 per cent less than the 142,066 families provided with dwelling places in new buildings during the first half of 1929.

While there was a decrease of 53.1 per cent in total building operations considering the 85 cities as a whole, a number of cities had notable increases in indicated expenditures for building operations, among which was Cincinnati where nearly \$22,000,000 was spent during the first half of 1930 compared with \$14,000,000 during the like period in 1929. Other cities showing increases in the first 6 months of 1930 over the first 6 months of 1929 are Kansas City, Mo.; Memphis, Tenn.; Nashville, Tenn.; New Bedford, Mass.; Omaha, Nebr.; St. Paul, Minn.; Takoma, Wash.; and Trenton, N. J.

Large decreases were registered in most of the larger cities. In the Borough of Manhattan permits were issued for building operations to cost over \$400,000,000 for the first half of 1929 and for less than \$100,000,000 for the first half of 1930. In Chicago permits issued for total building operations for the first half of 1929 indicated an expenditure of nearly \$120,000,000 while during the first half of 1930 permits in this city indicated an expenditure of only slightly over \$40,000,000. In Philadelphia the decrease was from fifty-eight and a half million dollars to thirty-four and a half million dollars.

TABLE 1.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL BUILDING OPERATIONS IN 85 CITIES OF THE UNITED STATES HAVING A POPULATION OF 100,000 OR OVER, FOR THE FIRST HALF OF 1929, COMPARED WITH THE FIRST HALF OF 1930

City	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new buildings		Estimated cost		Estimated cost	
	First half of 1929	First half of 1930	First half of 1929	First half of 1930	First half of 1929	First half of 1930	First half of 1929	First half of 1930
Akron.....	\$7,082,958	\$4,419,730	1,541	280	\$3,533,971	\$1,343,190	\$11,092,828	\$6,279,578
Albany.....	2,414,000	1,047,000	280	106	2,871,472	879,272	6,444,964	2,831,927
Atlanta.....	3,003,015	1,085,580	907	403	2,874,214	3,212,510	8,382,978	5,003,966
Baltimore.....	7,457,500	4,609,800	1,781	986	5,752,900	7,983,600	16,817,300	16,653,200
Birmingham.....	1,219,425	273,332	484	112	3,967,786	876,599	5,848,337	1,514,478
Boston.....	15,495,985	3,454,700	2,061	778	10,274,643	5,790,537	30,414,050	13,874,901
Bridgeport.....	1,112,560	660,000	259	147	1,040,285	468,415	2,281,680	1,398,340
Buffalo.....	3,072,520	1,774,725	921	562	4,014,129	3,789,510	7,733,929	6,249,615
Cambridge.....	3,446,400	1,268,143	728	96	2,372,335	849,539	6,986,398	2,947,940
Camden.....	565,600	266,900	172	68	847,658	905,750	1,767,618	1,412,725
Canton.....	1,049,300	332,400	202	69	686,560	622,317	1,872,775	1,076,037
Chicago.....	60,643,600	12,666,600	13,215	1,546	54,141,825	25,873,150	118,898,940	41,953,917
Cincinnati.....	7,886,225	9,129,242	1,322	806	4,863,800	11,972,605	14,013,080	21,891,264
Cleveland.....	7,546,300	4,061,300	1,318	798	6,910,000	7,037,775	18,539,750	13,952,225
Columbus.....	4,305,500	1,702,100	880	295	965,500	959,100	6,024,100	3,053,350
Dallas.....	1,983,125	1,400,925	786	559	1,963,070	1,765,965	5,313,407	4,130,071
Dayton.....	1,063,527	363,197	136	83	1,778,830	2,490,251	3,443,175	3,333,157
Denver.....	3,910,000	1,291,650	996	286	7,017,700	1,572,750	11,892,350	3,843,500
Des Moines.....	970,675	455,350	205	86	245,850	2,006,432	1,431,133	2,601,184
Detroit.....	31,163,139	14,532,916	7,338	2,505	17,443,540	9,036,237	55,855,545	27,486,168
Duluth.....	493,095	115,155	70	35	192,275	81,295	1,141,102	616,900
El Paso.....	896,869	853,308	336	267	500,957	722,902	1,476,460	1,818,669
Fall River.....	91,050	78,650	23	21	93,245	341,631	273,390	596,126
Flint.....	4,295,300	1,139,430	1,127	269	1,434,262	766,719	6,606,687	2,248,444
Fort Wayne.....	1,420,213	970,330	292	201	720,121	559,582	2,995,596	1,778,669
Fort Worth.....	3,046,471	1,117,413	794	318	2,714,059	3,009,941	6,373,944	4,585,122
Grand Rapids.....	1,351,800	568,150	371	151	1,346,045	692,550	3,218,050	1,686,050
Hartford.....	815,700	477,500	194	34	8,757,752	2,714,125	11,855,414	3,905,060
Houston.....	8,431,284	5,106,630	2,022	1,216	9,348,769	3,505,875	18,252,723	8,788,267
Indianapolis.....	4,166,725	1,655,890	1,072	363	2,955,306	2,208,681	8,007,526	4,538,214
Jacksonville.....	1,213,975	276,000	456	109	1,072,990	483,940	2,822,600	1,209,670
Jersey City.....	3,832,880	549,000	1,230	152	5,677,525	5,619,267	10,058,739	6,572,539
Kansas City (Kans.).....	301,250	280,950	132	104	562,525	439,300	896,185	772,230
Kansas City (Mo.).....	4,361,800	3,252,000	1,429	644	1,249,250	3,867,800	6,056,400	8,140,850
Knoxville.....	1,687,399	557,009	323	178	1,311,486	1,211,262	3,092,722	1,899,383
Long Beach.....	5,308,130	3,430,950	1,885	1,167	6,084,835	2,280,805	11,743,155	6,075,120
Los Angeles.....	28,369,961	17,062,228	9,179	5,812	19,300,847	16,737,419	54,071,599	39,712,901
Louisville.....	3,112,450	1,331,300	950	263	3,938,365	3,140,140	7,953,405	4,921,065
Lowell.....	82,625	78,950	21	20	97,790	40,400	419,650	377,584
Lynn.....	1,122,600	256,500	317	52	587,313	1,732,427	2,536,381	2,322,852
Memphis.....	2,539,600	2,601,730	751	640	1,302,473	2,948,890	4,590,496	6,556,017
Miami.....	409,570	332,750	70	65	1,092,193	373,010	1,898,508	1,137,828
Milwaukee.....	9,058,777	3,460,575	2,398	894	4,016,623	8,062,764	16,289,312	13,092,107
Minneapolis.....	4,585,895	2,671,155	1,006	723	7,463,860	1,956,065	14,426,185	6,366,855
Nashville.....	2,215,047	587,925	564	188	826,080	2,929,380	3,710,460	3,804,079
Newark.....	2,224,680	969,200	407	182	8,087,716	4,133,532	12,990,016	6,656,497
New Bedford.....	95,400	78,500	14	12	163,665	315,615	355,740	528,860
New Haven.....	1,650,900	790,800	191	149	1,959,772	2,506,573	4,178,732	3,666,097
New Orleans.....	1,708,847	436,980	795	122	4,737,869	1,064,275	7,612,786	2,089,775
New York:								
The Bronx.....	54,475,150	9,806,000	12,342	2,274	12,506,700	13,442,069	70,704,500	27,556,189
Brooklyn.....	69,136,450	12,636,600	9,148	2,779	26,478,669	13,654,375	104,054,444	31,548,060
Manhattan.....	341,055,000	21,213,000	15,244	3,521	78,706,400	59,609,200	447,442,921	99,046,368
Queens.....	46,641,335	21,250,310	10,670	4,749	15,464,778	16,899,331	66,218,126	41,006,467
Richmond.....	3,318,140	1,761,000	747	352	1,835,379	1,358,197	5,698,073	3,818,150
Norfolk.....	777,975	537,936	160	140	590,953	527,527	1,634,493	1,201,072
Oakland.....	3,293,950	2,732,000	1,008	807	3,406,050	1,949,752	7,705,590	5,518,463
Oklahoma City.....	5,758,595	4,110,925	1,778	1,106	3,570,495	5,174,662	9,981,140	9,928,855
Omaha.....	1,171,050	463,550	258	104	872,732	2,607,000	2,357,952	3,586,844
Paterson.....	798,650	302,200	249	68	1,455,838	439,568	2,874,284	1,159,457
Philadelphia.....	21,330,585	5,731,350	4,454	1,196	32,577,570	24,169,490	58,533,385	34,569,340
Pittsburgh.....	6,239,850	3,944,350	1,250	837	9,128,091	3,288,825	17,828,478	9,962,874
Portland (Oreg.).....	4,098,750	1,983,235	923	464	3,104,495	2,180,815	8,603,730	5,391,185
Providence.....	2,910,700	1,993,400	454	278	2,965,900	2,645,975	7,793,700	6,001,845
Reading.....	1,774,527	417,800	152	70	1,828,104	745,555	4,049,183	1,475,544

TABLE 1.—ESTIMATED COST OF NEW RESIDENTIAL BUILDINGS, NEW NONRESIDENTIAL BUILDINGS, AND TOTAL BUILDING OPERATIONS IN 85 CITIES OF THE UNITED STATES HAVING A POPULATION OF 100,000 OR OVER, FOR THE FIRST HALF OF 1929, COMPARED WITH THE FIRST HALF OF 1930—Continued

City	New residential buildings				New nonresidential buildings		Total construction (including alterations and repairs)	
	Estimated cost		Families provided for in new buildings		Estimated cost		Estimated cost	
	First half of 1929	First half of 1930	First half of 1929	First half of 1930	First half of 1929	First half of 1930	First half of 1929	First half of 1930
Richmond (Va.).....	\$2,069,685	\$707,050	469	157	\$4,427,586	\$1,468,011	\$6,933,446	\$2,652,128
Rochester.....	3,105,738	946,955	315	149	3,825,539	1,043,818	8,239,440	2,932,173
St. Louis.....	9,904,150	2,961,390	3,049	786	4,116,597	4,662,615	15,723,135	9,278,695
St. Paul.....	1,357,596	1,187,520	285	205	2,027,241	5,051,362	4,908,050	7,081,730
Salt Lake City.....	1,916,990	1,014,000	435	302	775,556	614,990	3,359,501	1,856,760
San Antonio.....	3,954,280	1,539,145	1,137	607	6,287,126	3,031,388	11,211,703	4,984,730
San Diego.....	2,810,737	1,654,600	761	480	2,093,516	860,839	5,320,925	2,868,613
San Francisco.....	8,851,010	5,140,510	2,095	1,152	7,098,570	5,687,531	18,076,778	12,393,561
Scranton.....	382,265	313,990	89	31	1,037,854	792,615	1,814,542	1,344,616
Seattle.....	7,543,120	7,568,585	2,072	1,522	7,509,290	6,930,940	20,508,300	16,426,605
Somerville.....	767,500	86,000	225	27	971,115	196,940	1,897,965	442,594
Spokane.....	993,350	652,675	276	176	371,715	352,344	2,024,169	1,334,148
Springfield (Mass.).....	1,323,250	586,700	319	138	1,138,215	1,119,063	3,206,681	2,106,543
Syracuse.....	2,562,400	1,347,500	453	242	2,070,660	904,900	6,001,389	2,577,410
Tacoma.....	844,500	744,000	297	230	1,361,245	1,689,790	2,554,735	2,637,880
Tampa.....	258,845	82,630	133	48	797,914	633,447	1,354,690	896,630
Toledo.....	3,214,370	905,380	914	247	2,485,076	4,825,080	6,920,606	6,182,419
Trenton.....	376,864	131,800	46	28	816,564	1,313,508	1,723,526	1,754,538
Tulsa.....	3,434,472	2,203,565	1,098	503	3,207,049	1,918,585	6,911,778	4,331,970
Utica.....	353,600	301,450	54	40	583,250	176,040	1,098,635	665,030
Washington.....	13,220,050	9,472,250	1,961	1,090	23,269,230	16,988,523	38,547,655	30,522,416
Wilmington.....	1,509,335	952,700	256	196	1,761,663	2,051,012	3,786,622	3,436,122
Worcester.....	1,094,100	827,125	189	154	1,526,868	1,634,651	3,960,430	3,183,465
Yonkers.....	9,902,800	2,106,750	1,447	233	4,518,714	637,840	14,876,279	3,168,315
Youngstown.....	1,531,975	385,030	303	89	1,048,929	1,210,639	2,746,132	1,809,399
Total.....	910,345,416	248,601,102	142,066	52,489	510,761,272	378,270,981	1,570,145,411	736,591,196
Per cent of change..		-72.7		-63.1		-25.9		-53.1

WAGES AND HOURS OF LABOR

Wages and Hours of Labor in the Portland Cement Industry, 1929

THIS report presents the results of the first comprehensive study by the Bureau of Labor Statistics of wages and hours of labor of wage earners in the Portland cement industry in the United States by occupations.

The statistics in the report were computed from wage data for 20,544 males and 157 females, which were collected by agents of the bureau from the pay rolls and other records of 102 Portland cement plants in 28 States.

The wage data covered the actual hours worked, wage rates, and amount earned by each wage earner in a representative pay period in 1929 and other pertinent information. Most of the information was taken from pay rolls in the last four months in 1929 and consequently is representative of the conditions as of that period.

Average Hours and Earnings, 1929, by Occupations

TABLE 1 shows for all occupations in the industry, and also for each of the specified occupations in each department of the industry, summaries of average full-time hours, average earnings per hour, and average full-time earnings per week. The group designated in the table as "Other employees" includes wage earners in other occupations, each too small in number to warrant tabulation as an occupation.

Average full-time hours per week for males in all occupations were 60.8, for females 52, and for both sexes, or the industry, 60.8. Average earnings per hour for males were 51.8 cents, for females 38.9 cents, and for both sexes, or the industry, 51.7 cents. Average full-time earnings per week for males in all occupations were \$31.49, for females \$20.23, and for both males and females, or the industry, \$31.43.

Average full-time hours per week for males range from 54.5 for "sack cleaners" in the cement department to 80 for "elevator tenders" in the coal-mill department, and for females from 48.8 for "sack tiers" in the cement department to 52.2 for the group designated "other employees" in the same department. Average earnings per hour for males range from 36.3 cents for "laborers" in the coal-mill department to 87 cents for "packers (sackers)" in the cement department, and for females from 31.2 cents for "laborers" in the cement department to 49.2 cents for "sack tiers" in the same department.

Average full-time earnings per week for males range from \$21.78 for "laborers" in the shops and miscellaneous departments to \$48.81 for "packers (sackers)" in the cement department, and for females from \$16.10 for "laborers" in the cement department to \$24.01 for "sack tiers" in the same department.

TABLE 1.—AVERAGE HOURS AND EARNINGS, 1929, FOR THE INDUSTRY AND FOR EACH OCCUPATION IN EACH DEPARTMENT, BY SEX

Department and occupation	Sex	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
<i>Industry</i>						
All occupations	Male	102	20,544	60.8	\$0.518	\$31.49
Do.	Female	28	157	52.0	.389	20.23
Do.	Male and female	102	20,701	60.8	.517	31.43
<i>Quarry</i>						
Drillers	Male	85	544	56.9	.525	29.87
Blasters	do.	70	142	55.9	.534	29.85
Shovel engineers	do.	87	250	57.5	.730	41.94
Shovel cranemen	do.	48	95	57.1	.595	33.97
Shovel firemen	do.	47	110	58.7	.461	27.06
Locomotive engineers	do.	84	324	57.3	.532	30.48
Locomotive firemen	do.	24	82	57.5	.471	27.08
Laborers	do.	91	1,213	57.4	.395	22.67
Other employees	do.	89	1,239	58.2	.499	29.04
<i>Raw</i>						
Unloaders, hand	Male	34	162	60.4	.411	24.82
Unloaders, mechanical	do.	53	124	61.7	.506	31.22
Crusher operators	do.	85	206	56.9	.503	28.62
Elevator tenders	do.	9	14	63.2	.423	26.73
Conveyor tenders	do.	64	295	66.9	.428	28.63
Mixer tenders	do.	36	113	66.1	.479	31.66
Dryer tenders	do.	33	127	64.6	.461	29.74
Dryer firemen	do.	22	62	69.6	.438	30.48
Grinder operators	do.	95	322	66.8	.503	33.60
Raw-finish mill operators	do.	55	208	64.9	.505	32.77
Oilers	do.	62	181	68.6	.406	27.85
Laborers	do.	79	434	63.5	.403	25.59
Other employees	do.	80	665	64.6	.500	32.30
<i>Coal mill</i>						
Laborers	Male	33	119	71.2	.363	25.85
Elevator tenders	do.	3	6	80.0	.373	29.84
Conveyor tenders	do.	29	81	69.7	.427	29.76
Dryer tenders	do.	34	98	64.2	.472	30.30
Dryer firemen	do.	34	88	69.1	.450	31.10
Crusher operators	do.	12	28	65.7	.463	30.42
Grinder operators	do.	76	206	68.3	.519	35.45
Other employees	do.	25	85	68.3	.458	31.23
<i>Shops and miscellaneous</i>						
Machinists	Male	99	433	56.0	.651	36.46
Repairmen	do.	101	1,329	61.3	.572	35.06
Laborers	do.	90	1,212	58.7	.371	21.74
Other employees	do.	101	2,559	57.4	.562	32.25
<i>Clinker</i>						
Burners, first	Male	101	322	64.2	.628	40.32
Burners, second	do.	46	220	65.3	.534	34.87
Cooler tenders	do.	25	57	69.3	.456	31.60
Mixers	do.	31	104	65.7	.456	28.59
Elevator tenders	do.	9	23	69.8	.366	25.55
Conveyor tenders	do.	61	206	69.4	.445	30.84
Clinker grinders	do.	93	396	66.3	.498	33.02
Oilers	do.	75	262	69.4	.449	31.16
Laborers	do.	67	315	67.2	.422	28.36
Other employees	do.	85	701	67.7	.497	33.65
<i>Cement</i>						
Conveyor tenders	Male	52	132	57.8	.437	25.26
Elevator tenders	do.	3	4	60.0	.434	26.04
Packers (sackers)	do.	96	1,249	56.1	.870	48.81
Sack tiers	do.	65	130	55.2	.495	27.32
Sack tiers	Female	3	8	48.8	.492	24.01
Loaders	Male	25	148	57.2	.560	32.03
Laborers	do.	87	728	57.2	.416	23.89
Laborers	Female	2	5	51.6	.312	15.19

TABLE 1.—AVERAGE HOURS AND EARNINGS, 1929, FOR THE INDUSTRY AND FOR EACH OCCUPATION IN EACH DEPARTMENT, BY SEX—Continued

Department and occupation	Sex	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
<i>Cement—Continued</i>						
Sack cleaners.....	Male.....	40	106	54.5	\$0.427	\$23.27
Sack cleaners.....	Female.....	3	14	51.4	.425	21.85
Inspectors.....	Male.....	22	61	58.3	.420	24.49
Oilers.....	do.....	17	22	56.9	.466	26.52
Other employees.....	do.....	94	743	57.0	.532	30.32
Other employees.....	Female.....	26	130	52.2	.382	19.94
<i>Power</i>						
Laborers.....	Male.....	26	71	63.2	.395	24.96
Firemen.....	do.....	26	116	61.9	.523	32.37
Engineers.....	do.....	51	253	60.7	.587	35.63
Pumpmen.....	do.....	24	57	69.3	.450	31.19
Oilers.....	do.....	32	99	70.5	.461	32.50
Other employees.....	do.....	82	863	67.3	.557	37.49

Average Hours and Earnings, 1929, by Districts

AVERAGE full-time hours per week, earnings per hour, and full-time earnings per week are presented in Table 2 for wage earners of each sex and for both sexes combined in each of 12 geographic districts in the United States. The districts are those shown by the Bureau of Mines in Portland Cement in July, 1929, except that no data are shown in this table for Maine in district 2; for Louisiana in district 6; for Minnesota and South Dakota in district 7; nor for Wyoming and Idaho in district 10. The districts are as follows:

- No. 1..... Eastern Pennsylvania, New Jersey, and Maryland.
- No. 2..... New York.
- No. 3..... Ohio, western Virginia, and western Pennsylvania.
- No. 4..... Michigan.
- No. 5..... Wisconsin, Illinois, Indiana, and Kentucky.
- No. 6..... Virginia, Tennessee, Alabama, Georgia, and Florida.
- No. 7..... Iowa and eastern Missouri.
- No. 8..... Kansas, Oklahoma, Nebraska, and western Missouri.
- No. 9..... Texas.
- No. 10..... Utah, Montana, and Colorado.
- No. 11..... California.
- No. 12..... Oregon and Washington.

Average full-time hours for males range from 53.9 per week in district No. 12 to 67.9 in district No. 9, and for females from 45.1 in one of the districts for which averages are not shown separately to 57.8 in district No. 8. Averages for females are not shown for districts 2, 9, and 11 because data for each are for one plant only.

Average earnings per hour for males range from 37.3 cents in district No. 9 to 60.9 cents in district No. 12, and for females from 23.4 cents in one of the districts for which averages are not shown separately to 52.8 cents in district No. 11.

Average full-time earnings per week for males range from \$25.33 in district No. 9 to \$35.02 in district No. 4, and for females from \$13.34 in one of the districts for which averages are not shown separately to \$25.24 in district No. 11.

Average full-time hours per week for males and females combined, or the industry, range from 53.9 in district No. 12 to 67.8 in district No. 9; average earnings per hour range from 37.3 cents in district No. 9 to 60.8 cents in district No. 12; and average full-time earnings per week range from \$25.29 in district No. 9 to \$34.84 in district No. 4.

TABLE 2.—NUMBER OF ESTABLISHMENTS AND OF WAGE EARNERS AND AVERAGE HOURS AND EARNINGS, 1929, BY SEX AND DISTRICT

Sex and district	Number of establishments	Number of employees	Average full-time hours per week	Average earnings per hour	Average full-time earnings per week
<i>Males</i>					
No. 1.....	16	4,566	61.2	\$0.554	\$33.90
No. 2.....	6	1,230	60.7	.551	33.45
No. 3.....	10	2,194	61.5	.558	34.32
No. 4.....	9	1,409	62.1	.564	35.02
No. 5.....	10	2,708	60.2	.495	29.80
No. 6.....	13	2,043	64.0	.427	27.33
No. 7.....	6	1,892	61.6	.479	29.51
No. 8.....	7	1,292	60.0	.446	26.76
No. 9.....	3	607	67.9	.373	25.33
No. 10.....	6	617	56.8	.528	29.88
No. 11.....	9	1,416	55.2	.587	32.40
No. 12.....	7	570	53.9	.609	32.83
Total.....	102	20,544	60.8	.518	31.49
<i>Females</i>					
No. 1.....	2	11	53.6	.356	19.08
No. 2.....	1	(¹)	(¹)	(¹)	(¹)
No. 3.....	2	10	50.4	.448	22.58
No. 4.....	4	11	56.7	.348	19.73
No. 5.....	5	31	51.7	.370	19.13
No. 7.....	2	39	54.6	.331	18.07
No. 8.....	3	8	57.8	.399	23.06
No. 9.....	1	(¹)	(¹)	(¹)	(¹)
No. 10.....	5	10	48.8	.416	20.30
No. 11.....	2	22	47.8	.528	25.24
No. 12.....	1	(¹)	(¹)	(¹)	(¹)
Total.....	28	157	52.0	.389	20.23
<i>Males and females</i>					
No. 1.....	16	4,577	61.1	.553	33.79
No. 2.....	6	1,241	60.6	.550	33.33
No. 3.....	10	2,204	61.4	.558	34.26
No. 4.....	9	1,420	62.0	.562	34.84
No. 5.....	10	2,739	60.2	.494	29.74
No. 6.....	13	2,043	64.0	.427	27.33
No. 7.....	6	1,931	61.5	.476	29.27
No. 8.....	7	1,300	60.0	.446	26.76
No. 9.....	3	609	67.8	.373	25.29
No. 10.....	6	627	56.7	.525	29.77
No. 11.....	9	1,438	55.1	.586	32.29
No. 12.....	7	572	53.9	.608	32.77
Total.....	102	20,701	60.8	.517	31.43

¹ Included in "Total." Not shown here as it is the policy of the bureau not to publish data for any one plant separately.

Average and Classified Earnings per Hour, 1929

TABLE 3 presents a percentage distribution of average earnings per hour of the male employees in 14 representative occupations in the Portland cement industry. The employees in these occupations represent between 36 and 37 per cent of all employees included in the study. The classified figures in the table are representative of the spread of average earnings per hour of the employees in all occupations in the industry.

The figures for "drillers" in the quarries, the first occupation shown in the table, are for 544 wage earners in 85 quarries. They earned an average of 52.5 cents per hour, and less than 1 per cent of them earned 25 and under 30 cents; 2 per cent earned 30 and under 35 cents; 6 per cent earned 35 and under 40 cents. The distribution continues by groups to 2 per cent at \$1.25 and under \$1.50 per hour and to less than 1 per cent at an average earning of \$1.50 and under \$1.75 per hour.

TABLE 3.—AVERAGE AND CLASSIFIED EARNINGS PER HOUR OF MALE EMPLOYEES IN 14 SPECIFIED OCCUPATIONS, 1920, BY DEPARTMENT

Per cent of employees whose earnings in cents per hour were—																								
Department and occupation	Num-ber of estab-lish-ments	Num-ber of em-ploy-ees	Aver-age earn-ings per hour	15, un-der 20	20, un-der 25	25, un-der 30	30, un-der 35	35, un-der 40	40, un-der 45	45, un-der 50	50, un-der 55	55, un-der 60	60, un-der 65	65, un-der 70	70, un-der 75	75, un-der 80	80, un-der 85	85, un-der 90	90, un-der 95	95, un-der 100	100, un-der 125	125, un-der 150	150, un-der 175	175, un-der 200
Quarry																								
Drillers.....	85	544	\$0.525			(1)	2	6	15	27	23	4	12	2	1	3	1	(1)	1	(1)	1	2	(1)	
Shovel engineers.....	87	250	.730						2	4	5	8	11	7	15	19	6	8	4	5	6			
Laborers.....	91	1,213	.395		2	11	11	22	32	14	4	1	3	(1)	(1)	(1)								
Raw																								
Crusher operators.....	85	206	.503		1	1	2	5	18	17	28	11	7	(1)	1			1	2	3	1			
Grinder operators.....	95	322	.503		1	1	1	4	11	27	20	21	7	2	(1)	1	(1)	1	1	1	1			
Laborers.....	79	434	.403		3	5	7	23	37	9	8	2	1	(1)	(1)			1	1	1	(1)			
Shops and miscellaneous																								
Laborers.....	90	1,212	.371		6	10	13	22	31	11	5	(1)	(1)					1	(1)	(1)				
Coal mill																								
Grinder operators.....	76	206	.519				1	3	9	26	29	15	5	2	3	2		1	2	1	(1)			
Laborers.....	33	119	.363		3	7	3	49	33	4	1													
Clinker																								
Burners, first.....	101	322	.628						3	4	12	9	26	19	14	6	1	2		(1)	4			
Clinker grinders.....	93	396	.498		1	1	1	2	12	28	28	14	6	1	(1)	1	(1)	1	1	1	1			
Laborers.....	67	315	.422		2	5	7	15	52	11	8	(1)	(1)											
Cement																								
Packers (sackers).....	96	1,249	.870			(1)	(1)	3	3	2	4	6	4	4	5	6	10	7	8	2	7	2	1	
Laborers.....	87	728	.416		2	4	5	24	35	19	7	2	2	(1)	(1)	(1)	(1)	(1)	(1)					

1 Less than 1 per cent.

Full-time Hours in 1929

TABLE 4 shows for the *male* wage earners in each of 14 representative occupations in the industry average full-time hours per week and also the per cent of wage earners in each occupation working each classified number of full-time hours per week. Full-time hours per week represent the standard full time as established by the regular time of beginning and quitting work on each day of the week less the regular time off duty each day for dinner, lunch, or any other meal, without taking into consideration any time off by any employee for any cause.

Average full-time hours for the 544 "drillers," the first occupation shown in the table, were 56.9 per week. The percentage distribution of the employees in this occupation shows that the full-time hours per week of 23 per cent of them were 48; of 15 per cent were 54; of 6 per cent were 55. The distribution continues by groups to 2 per cent at 77 hours per week.

TABLE 4.—AVERAGE AND CLASSIFIED FULL-TIME HOURS PER WEEK OF MALE EMPLOYEES IN 14 SPECIFIED OCCUPATIONS, 1929, BY DEPARTMENT.

Department and occupation	Number of establishments	Number of employees	Average full-time hours per week	Per cent of employees whose full-time hours per week were—															
				40	48	Over 48 under 54	54	55	56	Over 56 under 60	60	Over 60 under 70	70	Over 70 under 77	77	80½	84	86	94½
Quarry																			
	Drillers.....	85	544	56.9		23		15	6	7	2	34	7	4		2			
	Shovel engineers.....	87	250	57.5		18	2	15	6	4	3	38	6	4		2			
Raw																			
	Laborers.....	91	1,213	57.4		17		12	7	6	3	46	3	4		1			
Shops and miscellaneous																			
	Crusher operators.....	85	206	56.9	7	18	(1)	10	(1)	22	2	22	8	1	2	1	4	(1)	
	Grinder operators.....	95	322	66.8	3	3		2	1	49	(1)	1	2	2	2	1	34	(1)	
Coal mill																			
	Laborers.....	79	434	63.5	3	7		11	2	20	4	21	5	(1)	4	3	19	1	
Clinker																			
	Laborers.....	90	1,212	58.7	1	10	1	13	6	3	6	45	4	4	1	(1)	4		
Cement																			
	Grinder operators.....	76	206	68.3	5	1		1		43				2	4	1	42	1	
	Laborers.....	33	119	71.2		1		3	4	19	2	9	1	10	6	1	43	1	
Packers (suckers)																			
	Laborers.....	101	322	64.2	2	1		1		65		1	(1)		1		29		
Laborers																			
	Burners, first.....	93	306	66.3	4	1		2		52		1	1		3	1	36		
	Clinker grinders.....	67	315	67.2		2		3	2	28	7	14	4	5	1	1	2		
Laborers																			
	Laborers.....	96	1,249	56.1	(1)	23	1	14	2	1	7	47	5	2	1				
	Laborers.....	87	728	57.2		21	(1)	13	3	(1)	5	46	8						

1 Less than 1 per cent.

Full-time hours per week and per day are shown in Table 5 by geographic districts for the wage earners in the quarry, coal-mill, and cement departments of the Portland cement industry; for those in the raw department, who did the crushing and the grinding of rock; and for those in the clinker department, who did the burning and the grinding of the burnt rock.

The geographic districts are Nos. 1 to 12 and are described on page 159.

Much of the work in the cement industry was continuous because of the relation to the burning and the grinding of rock in the clinker department. Except when closed for necessary repairs, kilns were kept burning day and night in 101 of the 102 plants included in the study, and grinding of burnt rock was continuous, or of two or more shifts per day, in all except 4 of the 102 plants. There was much variation in the regular hours per week and per day of wage earners in the different departments and also in the same department, especially of those who worked on different shifts. A typical example in one plant is as follows:

EXAMPLE OF VARIATIONS IN REGULAR HOURS OF LABOR IN A CEMENT PLANT

Department	Work done	Number of shifts	Regular hours of shifts			
			Per week	Monday to Friday	Saturday	Sunday
Quarry.....	All in department.....	1 (day).....	60	10	10	-----
Raw.....	{Crushing rock.....	1 (day).....	60	10	10	-----
	{Grinding rock.....	{1 (day).....	73½	10½	10½	10½
Coal mill.....	{Grinding rock.....	{1 (night).....	94½	13½	13½	13½
		{1 (day).....	73½	10½	10½	10½
Clinker.....	{Burning crushed rock.....	{1 (night).....	94½	13½	13½	13½
		3 in 24 hours.....	56	8	8	8
Cement.....	{Grinding burnt rock.....	1 (day).....	73½	10½	10½	10½
		1 (day).....	60	10	10	-----
Power.....	All in power house.....	2 in 24 hours.....	84	12	12	12

Quarries were generally in operation during the day, or one shift only. The hours of this department were usually the basis of the hours of wage earners who did the work of crushing rock in the raw department. Crushing was occasionally done in the quarries of a very few plants. There was day work, or one shift only, in 77 of the 87 plants in which there was raw crushing and day work and night work in 10 plants. The operation of grinding rock in the raw department was generally continuous, consisting of two or more shifts per day. There was day work in 6 and day work and night work in 95 plants in which there was grinding in the raw department. The operation of the coal-mill departments, which supplied pulverized coal to the kilns, was usually continuous, or of two or more shifts, in all except 5 of the 82 plants in which coal was used. Twenty of the 102 plants used gas or oil. The cement department, where the product was finished, bagged, and placed in storage, or loaded for shipment from the plants, was in operation during the day or one shift only.

The data in Table 5 show that the full-time hours of 18 quarries were 48 per week, or 8 hours each on 6 days, there being no work on Sunday at any of the 18. Two of them were in geographic district

No. 1; 2 in No. 3; 3 in No. 5; 1 in No. 7; 1 in No. 8; 2 in No. 10; 3 in No. 11; and 4 were in district No. 12. The hours for 7 quarries were 56 per week, or 8 each day, Monday to Friday, Saturday, and Sunday; for 2 quarries 63 per week, or 9 each of 7 days; for 4 quarries 70 per week, or 10 each on 7 days; for 2 quarries 77 per week, or 11 each on 7 days; and for 2 other quarries 84 per week, or 12 hours each on 7 days. There were no regular hours of work on Sunday at 78 of the 95 quarries included in the table.

It will be observed under "crushing in the raw department," that in 3 plants there were three shifts of 8 hours each on 7 days, or 56 hours per week; that in 1 plant there were two shifts each on 7 days, the hours of the first shift being 10½ each on 7 days or 73½ per week, and of the second shift 13½ each on 7 days or 94½ per week; that in 1 plant there were two shifts, the hours of the first being 11 each on 7 days or 77 per week, and of the second 13 each on 7 days or 91 per week; and that in 5 plants, there were two shifts, the hours of each shift being 12 each on 7 days or 84 per week. Work in these plants was continuous and employees in them alternated; that is, they worked one shift one week or pay period and the next week or pay period worked the next or other shift.

TABLE 5.—FULL-TIME HOURS PER WEEK AND PER DAY, 1929, BY GEOGRAPHIC DISTRICTS AND DEPARTMENTS

[For explanation of geographic districts, see p. 159]

QUARRY DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	Number of plants in geographic district No.—												Total
				1	2	3	4	5	6	7	8	9	10	11	12	
48	8	8		2		2		3		1	1		2	3	4	18
54	9	9		2	3	1				1	4			2		13
55	10	5		2		1			1							4
56	8	8	8					1	1				3	1	1	7
57	9.5	9.5							1							1
59	10	9		2												2
60	10	10		4	2	4	2	5	8	3	2	3	1	1		35
60	10.3	8.5		1												1
62	10.5	9.5		1												1
63	9	9	9	1											1	2
66	11	11			1			1								2
70	10	10	10			1			2	1						4
72	12	12				1										1
77	11	11	11	1										1		2
84	12	12	12				2									2
Total				16	6	10	4	10	13	6	7	3	6	8	6	95

CRUSHING IN RAW DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Total
48	8	8		2	1	1		2		1	1			2	2	12
51	8.5	8.5						1								1
54	9	9		2	1	1				1	4			2		11
55	10	5							1							1
56	8	8	8	1		1	1	2	1				4	2	1	13
56 ¹	18	18	18												3	3
57	9.5	9.5		1					1							2
59	10	9		2												2
60	10	10		3		2	3	3	4	1	2	2	1			21
60	10.3	8.5		1									1			2
60.5	11	5.5		1												1
62	10.5	9.5		1												1
63	9	9	9	1												1
63	10.5	10.5				1										1
66	11	11			1			1	1							3
69	11.5	11.5		1												1

¹ 3 shifts.

TABLE 5.—FULL-TIME HOURS PER WEEK AND PER DAY, 1920, BY GEOGRAPHIC DISTRICTS AND DEPARTMENTS—Continued

CRUSHING IN RAW DEPARTMENT—Continued

Hours per week	Monday to Friday	Saturday	Sunday	Number of plants in geographic district No.—												Total
				1	2	3	4	5	6	7	8	9	10	11	12	
70.....	10	10	10						1	1						2
73.5 ²	² 10.5	² 10.5	² 10.5						1							1
77.....	11	11	11											2		2
77 ³	³ 11	³ 11	³ 11		1											1
84 ⁴	⁴ 12	⁴ 12	⁴ 12		1	2			1	1						5
Total.....				16	5	8	4	9	11	5	7	2	6	8	6	87

GRINDING IN RAW DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Total
54.....	9	9		1												1
55.....	10	5							1							1
56 ¹	¹ 8	¹ 8	¹ 8	5	2	3	1	5	4	2	4		5	7	7	45
59.....	10	9		1												1
60.....	10	10							1							1
66.....	11	11							1					1		2
73.5 ²	² 10.5	² 10.5	² 10.5						2							2
77 ³	³ 11	³ 11	³ 11	2	2	1	1	1		1		2	2		1	13
84 ⁴	⁴ 12	⁴ 12	⁴ 12	7	2	5	6	4	3	3	3	1		1		35
Total.....				16	6	9	8	10	12	6	7	3	7	9	8	101

COAL MILL DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Total
54.....	9	9		1												1
56 ¹	¹ 8	¹ 8	¹ 8	7	2	4	2	5	3	2	2		3		4	34
63.....	9	9	9						1							1
70.....	10	10	10						2							2
70 ³	³ 10	³ 10	³ 10	1												1
72.....	12	12							1							1
73.5 ²	² 10.5	² 10.5	² 10.5						2							2
77 ³	³ 11	³ 11	³ 11		2	1	1	1		1			1			7
84 ⁴	⁴ 12	⁴ 12	⁴ 12	7	2	5	6	4	4	3	2					33
Total.....				16	6	10	9	10	13	6	4		4		4	82

BURNING IN CLINKER DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Total
54.....	9	9		1												1
56 ¹	¹ 8	¹ 8	¹ 8	11	3	5	3	6	8	3	4		5	7	5	60
63 ¹	¹ 9	¹ 9	¹ 9						1							1
77 ³	³ 11	³ 11	³ 11		2	1	1	1		1		2	1		1	10
84 ⁴	⁴ 12	⁴ 12	⁴ 12	4	1	4	5	3	4	2	3	1		2	1	30
Total.....				16	6	10	9	10	13	6	7	3	6	9	7	102

GRINDING IN CLINKER DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	1	2	3	4	5	6	7	8	9	10	11	12	Total
48.....	8	8													1	1
54.....	9	9		1												1
56 ¹	¹ 8	¹ 8	¹ 8	5	2	5	2	5	5	2	4		5	7	4	46
60.....	10	10							1							1
66.....	11	11												1		1
70 ³	³ 10	³ 10	³ 10	1												1
73.5 ²	² 10.5	² 10.5	² 10.5						2							2
77 ³	³ 11	³ 11	³ 11						1							1
77 ³	³ 11	³ 11	³ 11	3	2	1	1	1		1		2	1		1	13
84 ⁴	⁴ 12	⁴ 12	⁴ 12	6	2	4	6	4	4	3	3	1		1	1	35
Total.....				16	6	10	9	10	13	6	7	3	6	9	7	102

¹ 3 shifts.² Of first shift.³ Of first shift.⁴ Of first shift.⁵ Of first shift.⁶ Two shifts.

Second shift, 94.5 per week, or 13.5 each of 7 days.

Second shift, 91 per week, or 13 each of 7 days.

Second shift, 84 per week, or 12 each of 7 days.

Second shift 98 per week or 14 each of 7 days.

TABLE 5.—FULL-TIME HOURS PER WEEK AND PER DAY, 1929, BY GEOGRAPHIC DISTRICTS AND DEPARTMENTS—Continued

CEMENT DEPARTMENT

Hours per week	Monday to Friday	Saturday	Sunday	Number of plants in geographic district No.—												Total
				1	2	3	4	5	6	7	8	9	10	11	12	
48.....	8	8		3		1		5	1	1			4	6	6	27
51.....	8.5	8.5									1					1
54.....	9	9		2	1	1			1	1	2			1		9
55.....	10	5				1				1						2
56.....	8	8	8				1				1		1	1		4
57.....	9.5	9.5							1			1				2
59.....	10	9		4												4
60.....	10	10		4	5	7	7	5	7	3	2		1	1	1	43
60.....	10.3	8.5		1												1
63.....	10.5	10.5										2				2
66.....	11	11		2					1							3
70.....	10	10	10						1							1
72.....	12	12					1									1
Total.....				16	6	10	9	10	12	6	6	3	6	9	7	100

Changes in Full-time Hours and Wage Rates Since January 1, 1928

IN MAKING the 1929 study of the industry each of the cement establishments from which wage figures were obtained was asked to furnish information concerning changes made in regular full-time hours per day and per week and in wage rates of wage earners since January 1, 1928.

Hours of burners, clinker grinders, and oilers of the clinker department of one cement plant were changed from two shifts of 12 hours each day and night or 84 per week, to three shifts of 8 hours each shift, or 56 hours per week. The hours of burners of the clinker department of another plant were changed from two shifts of 10½ hours each on 7 days, or 73½ hours per week for the day shift, and of 13½ hours each on 7 nights, or 94½ hours per week for the night shift, to three shifts of 8 hours each, or 56 hours per week. The hours of the shift workers of a third plant, that is, the wage earners engaged in continuous 24-hour operations who regularly alternate shifts, were changed by the employees being given 1 day of 8 hours off every three weeks with pay, to June, 1929, when they were given 1 day off each week without pay for time off duty, except that wage rates were increased approximately 3 per cent to make up partially for the loss of earnings by the change from 7 to 6 days per week. Between January 1, 1928, and the 1929 study there was no change in hours of any wage earners of 99 of the 102 plants.

Bonus Systems and Payments, 1929

A BONUS, as generally applied, is compensation in addition to earnings of employees at regular time or piece rates.

In 19 of the 102 Portland cement plants that were included in the study, earnings of all or of a specified part of the employees of each plant, as shown in Table 6, were increased by the addition of bonus payments.

The table shows the kind or basis of each bonus, the employees who may get the bonus, and the amount and conditions of the bonus. The basis of the bonus in 9 plants was "safety," being a specified per cent of earnings provided there was no loss of time by any employees on account of accident while on duty in a certain period of time. In 1 plant a "safety" bonus was paid to all employees, and a "production" bonus was also paid to "drillers" and to "locomotive engineers" and "shovel engineers." In 7 plants a "production" bonus was paid a specified part of the employees. In 1 plant a bonus was paid to shovel cranemen provided there was no breakage of the teeth of the shovel in a month, and a "service" bonus was paid to all employees of 1 plant.

TABLE 6.—BONUS SYSTEMS IN 19 CEMENT PLANTS, 1920

Number of plants	Kind of bonus	Employees entitled	Amount and conditions
7	Safety	All	1 per cent of earnings for no lost-time accident during pay period.
1	do	do	Employees are divided into safety groups. Groups having no accidents in the calendar month receive 1 per cent bonus.
1	do	Mine, quarry, mill, shops, and miscellaneous.	All employees of 5 days' service in each department free of accidents are paid 1 per cent bonus at the end of each month.
1	Production	All	1 per cent of earnings for no lost-time accident during pay period.
1	do	To drillers only.	\$2.02 per foot drilled over the set daily standard.
		Locomotive and shovel engineers.	A figure is set as the standard cost for hauling and loading rock. Any savings shown in these occupations is prorated according to earnings of the employees showing the savings.
3	do	Packers only	A certain number of barrels per day is set as the standard of production. When packers exceed this set standard of production they receive in addition to the regular rate a fixed amount for each barrel over and above the set standard. The amount per barrel allowed in each plant was 0.0071, 0.0172, and 0.01364 cent, respectively.
1	do	All employees in the shale quarry, and crusher tenders.	The cost of production is set at 9 cents per ton for rock from quarry through the crusher. If less than this figure, the savings is prorated among employees working in the quarry and crusher tenders.
1	do	Loaders hand and loaders with MODOCK (quarry).	95 cents per car of rock loaded for all over 5 cars per day in addition to the regular rate.
1	do	Shovel engineers, shovel cranemen, shovel firemen, locomotive engineers, pitmen, conductors, all in quarry.	95 cents per car of rock loaded for all over 5 cars per day in addition to the regular rate.
1	do	Sorters only	A set number of sacks constitute a standard day. For all sacks sorted over this set standard the sorter receives 0.001 cent per sack.
1	No breakage of teeth of shovel	Shovel cranemen	If no teeth in the shovel bucket are broken during the month the shovel craneman receives \$5.
1	Period of services	All	Department heads receive 1 month's salary; laboratory, office, subforemen, etc., receive 15 per cent of 1 month's salary. All others receive \$5. Bonus paid in December of each year. Period of service necessary to entitle employee to participation was not reported.

Pay for Overtime and Work on Sunday and Holidays

ANY time worked by an employee in excess of the *regular* full-time hours per day or per week is *usually* considered *overtime*. In the cement industry certain departments in most of the plants operate continuously night and day. Work on Sunday and holidays in such departments is regular working time and consequently is paid for as such.

Only 4 of the 102 plants covered in the study paid extra for either overtime or work on Sunday and holidays. In 1 plant all employees were paid one and one-half times the regular rate for any work on Sunday; in 1, all employees were paid one and one-half times the regular rate for any work on Christmas eve and twice the regular rate for any work on Christmas, New Year, and July 4; in 1, blacksmiths only; and in 1 employees in the packing department, machine shop, and quarry, and the locomotive crew were paid one and one-half times the regular rate for any work after the regular hours per day.

Days Actually Worked in One Week, 1929

TABLE 7 presents for each of the 14 representative occupations in the industry for which classified figures are shown in this report, the average number of days on which *male* wage earners in each occupation worked in one week in 1929, and also the per cent of the *male* employees in each of them who worked on each specified number of days in the week. Any part of a day on which an employee did any work was counted as a day.

It was frequently reported that wage earners in occupations of two shifts per day were on duty both shifts on one day of the week, or 24 hours. The employees in such occupations, almost invariably, alternated, in some plants each week and in others every two weeks, so that the wage earners of each shift had an equal amount of day work and night work. Example: there were two shifts, one for day workers designated "A," and the other for night workers designated "B." The workers on the day shift were on duty 12 hours each on 6 days and 24 hours continuously on the seventh day, or 96 hours one week, and those on the night shift were on duty 12 hours each on 6 nights and did no work on the seventh night, or 72 hours per week. The next week those designated "A" were on duty 6 nights of 12 hours each or 72 hours per week and those designated "B" were on duty 6 days of 12 hours each and 24 hours on Sunday or 96 hours per week. The employees of each shift had 24 hours' continuous work and 24 continuous hours off duty every two weeks. The 24 hours on the seventh day was counted a day in computing Table 7. The hours of shifts were not the same in all establishments, nor were the hours of the day shifts the same as the hours of the night shifts.

The first line of the table shows data for 544 drillers, of 85 quarries, who worked an average of 5.6 days in one week; 2 per cent of them worked on 1 day only; 1 per cent on 2 days; 2 per cent on 3 days; 6 per cent on 4 days; 20 per cent on 5 days; 49 per cent on 6 days; and 19 per cent of them were on duty on 7 days in one week. The table shows a considerable number of employees in each occupation as having worked on less than 6 days in the week. The reasons therefor

are many. Employees shown as having worked on less than 6 days may have entered service or left service at any time during the week, may have been absent one or more days in the week on account of illness or other disability, may have been off duty voluntarily part time, and also for other causes.

TABLE 7.—NUMBER OF DAYS ON WHICH MALE EMPLOYEES IN 14 SPECIFIED OCCUPATIONS WORKED IN ONE WEEK, 1929, BY DEPARTMENT

Department and occupation	Number of—		Average number of days worked in 1 week	Per cent of employees who worked each specified number of days						
	Estab-lish-ments	Em-ployees		1	2	3	4	5	6	7
Quarry:										
Drillers.....	85	544	5.6	2	1	2	6	20	49	19
Shovel engineers.....	87	250	5.8	(¹)	(¹)	2	8	12	57	19
Laborers.....	91	1, 213	5.4	2	2	3	9	23	48	12
Raw:										
Crusher operators.....	85	206	5.9	(¹)	1	(¹)	5	16	50	27
Grinder operators.....	95	322	6.3	(¹)	(¹)	2	3	7	35	53
Laborers.....	79	434	5.9	3	2	2	3	12	42	37
Shops and miscellaneous:										
Laborers.....	90	1, 212	5.5	2	3	4	7	17	51	16
Coal mill:										
Grinder operators.....	76	206	6.5	(¹)	(¹)	(¹)	1	6	30	61
Laborers.....	33	119	6.1	4	4			8	29	55
Clinker:										
Burners, first.....	101	322	6.7			(¹)	1	3	21	74
Clinker grinders.....	93	396	6.2	1	1	2	4	5	34	53
Laborers.....	67	315	6.1	2	1	2	4	9	33	49
Cement:										
Packers (sackers).....	96	1, 249	5.3	2	3	6	8	18	59	5
Laborers.....	87	728	5.3	4	5	3	5	13	64	6

¹ Less than 1 per cent.

Growth of the Industry

IN 1927 the production of Portland cement in the United States was 173,206,513 barrels, or approximately 33,000,000 barrels more than in the 16 years from 1890 to 1905 combined. The tremendous growth was due primarily to the trend to permanency of building construction, to the increasing scarcity of wood, and to the increase in the use of cement in the construction of the extensive network of concrete highways everywhere.

TABLE 8.—PRODUCTION IN NUMBER OF BARRELS EACH YEAR FROM 1890 TO 1927

Year	Barrels	Year	Barrels	Year	Barrels	Year	Barrels
1890.....	335, 500	1900.....	8, 482, 020	1910.....	76, 549, 951	1920.....	100, 023, 245
1891.....	454, 813	1901.....	12, 711, 225	1911.....	78, 528, 637	1921.....	98, 842, 049
1892.....	547, 440	1902.....	17, 230, 644	1912.....	82, 438, 096	1922.....	114, 789, 984
1893.....	590, 652	1903.....	22, 342, 973	1913.....	92, 097, 131	1923.....	137, 460, 238
1894.....	798, 757	1904.....	26, 505, 881	1914.....	88, 230, 170	1924.....	147, 358, 109
1895.....	990, 324	1905.....	35, 246, 812	1915.....	85, 914, 907	1925.....	161, 658, 901
1896.....	1, 543, 023	1906.....	46, 463, 424	1916.....	91, 521, 198	1926.....	164, 530, 176
1897.....	2, 677, 775	1907.....	48, 785, 390	1917.....	92, 814, 202	1927.....	173, 206, 513
1898.....	3, 692, 284	1908.....	51, 072, 612	1918.....	71, 081, 663		
1899.....	5, 652, 266	1909.....	64, 991, 431	1919.....	80, 777, 935		

The figures in Table 9, which were drawn from the reports of the United States Census of Manufactures, show for each of the years,

1919, 1921, 1923, 1925, and 1927 the total number of Portland cement plants in the country; average number of wage earners; amount paid as wages; average yearly earnings of wage earners as computed by the bureau; the number of barrels produced, not including puzzolan and natural cement; and also the average production in number of barrels per wage earner.

Between 1919 and 1927 the number of plants increased 30.9 per cent; the average number of wage earners increased 42.3 per cent; the amount paid as wages, 60 per cent; the average wages per wage earner per year, 12.4 per cent; production, 114.4 per cent; and the average production per wage earner, 52.5 per cent.

TABLE 9.—NUMBER OF ESTABLISHMENTS, WAGE EARNERS, WAGES, CEMENT PRODUCED, AND PRODUCTION PER WAGE EARNER IN THE CEMENT INDUSTRY 1919, 1921, 1923, 1925, AND 1927

Year	Number of establishments	Average number of wage earners	Amount paid in wages	Average wages per year	Cement produced (barrels)	Production per wage earner (barrels)
1919.....	123	25,524	\$33,194,920	\$1,301	80,777,935	3,165
1921.....	125	26,231	34,415,677	1,312	98,842,049	3,789
1923.....	133	35,091	49,707,992	1,417	137,460,238	3,955
1925.....	145	38,437	53,911,519	1,403	161,658,901	4,251
1927.....	161	36,322	53,110,745	1,462	173,206,513	4,827
Per cent increase, 1919-1927.....	30.9	42.3	60.0	12.4	114.4	52.5

Scope and Method

THE figures shown in the various tables of this report were computed from data of the wage earners only in the Portland cement industry, beginning with the drilling in the quarry and ending with loading the finished product for shipment from the plants. The report does not include any data for executives, supervisors, office force (including clerks, sample collectors, testers, analysts, chemists), nor for persons engaged in the construction of new or the repair of old buildings.

Average earnings per hour of wage earners in each occupation, as presented in the various tables in this report, were computed by dividing the combined earnings of all wage earners in the occupation by the total hours worked by them.

Average full-time hours per week of wage earners in each occupation were obtained by dividing the aggregate full-time hours of all wage earners in the occupation by the number of wage earners. The full-time hours per week of each wage earner were used in arriving at this average, even though some employees may have worked more or less than full time on account of overtime, sickness, disability, or other cause.

Average full-time earnings per week of wage earners in each occupation were computed by multiplying the average earnings per hour by the average full-time hours per week. This shows what the earnings would have been had all wage earners in the occupation worked full time, no more nor less, at the same average earning per hour as in the one week covered in the 1929 study of the industry.

The bureau in this study obtained wage data from plants in every State in which the manufacture of Portland cement was of material importance in number of wage earners. Selection of plants were made from lists by the Portland Cement Association, United States Bureau of Mines, trade directories, etc. The report, based on the 1927 Census of Manufactures, represents approximately 50 per cent of the total number of wage earners in the industry in the United States.

The frequency of wage payments to the wage earners of the 102 plants for which data are shown in the report was every week in 12, every two weeks in 87, and monthly in 3 plants. In the 90 plants in which the length of the pay period was more than one week, data were so taken as to make it possible to present averages for one week for wage earners in all plants.

Recent Changes in Wages and Hours of Labor

INFORMATION received by the bureau regarding recent wage changes is presented below in two distinct groups: Part 1 relates to manufacturing establishments only, the data being reported direct to the bureau by the same establishments that report monthly figures regarding volume of employment; while part 2 presents data obtained from new trade agreements and other miscellaneous sources. Although the effort is made, it is not always possible to avoid duplication of data as between parts 1 and 2.

Part 1. Wage Changes in Manufacturing Industries, June, 1930

SEVEN ESTABLISHMENTS in five industries reported wage-rate increases during the month ending June 15. These increases averaged 9.1 per cent and affected 6,918 employees, or 23 per cent of all employees in the establishments concerned. Sixty-three establishments in 16 industries reported wage-rate decreases during the same period. These decreases averaged 9.4 per cent and affected 10,784 employees, or 74 per cent of all employees in the establishments concerned. Nineteen of the 63 wage-rate decreases were made in sawmills, and affected 4,108 employees; no especial significance can be attached to any other of the changes reported.

WAGE CHANGES OCCURRING BETWEEN MAY 15, 1930, AND JUNE 15, 1930

Industry	Establishments		Per cent of increase or decrease in wage rate		Employees affected		
	Total number reporting	Number reporting increase or decrease in wage rates	Range	Average	Total number	Per cent of employees	
						In establishments reporting increase or decrease in wage rates	In all establishments reporting
			Increases				
Ice cream.....	347	1	10.0	10.0	10	22	(1)
Hosiery and knit goods.....	363	2	0.8- 3.5	2.8	419	27	(1)
Hardware.....	72	1	18.2	18.2	19	9	(1)
Brick, tile, and terra cotta.....	667	1	12.5	12.5	19	100	(1)
Electrical machinery, apparatus, and supplies.....	213	2	0.7- 9.0	0.7	6,451	23	
			Decreases				
Slaughtering and meat packing.....	216	1	10.0	10.0	364	100	(1)
Baking.....	721	1	5.0	5.0	19	100	(1)
Cotton goods.....	479	7	6.0-20.0	10.8	1,498	64	
Hosiery and knit goods.....	363	8	9.0-10.0	9.9	1,356	76	
Silk goods.....	287	1	16.7	16.7	71	12	(1)
Clothing, men's.....	350	2	5.0-30.0	12.4	84	100	(1)
Iron and steel.....	206	6	4.5	4.5	1,600	77	
Foundry and machine-shop products.....	1,108	2	10.0	10.0	93	95	(1)
Lumber, sawmills.....	683	19	7.0-20.0	10.3	4,108	99	
Lumber, millwork.....	335	4	5.0-15.0	11.0	149	77	
Furniture.....	424	2	10.0	10.0	242	100	(1)
Leather.....	137	2	10.0	10.0	289	94	
Boots and shoes.....	322	1	10.0	10.0	102	100	(1)
Fertilizers.....	182	2	10.5-12.5	10.9	112	70	
Brick, tile, and terra cotta.....	667	4	10.0-20.0	10.8	525	100	
Rubber boots and shoes.....	11	1	7.5	7.5	172	12	

¹ Less than one-half of 1 per cent.

Part 2. Wage Changes Reported by Trade-Unions Since April, 1930

CHANGES in wages and hours as reported in Table 2 cover approximately 20,000 workers, nearly all of whom are allied with trade-unions.

Wage increases in the building trades ranged from 2½ to 25 cents per hour; chauffeurs, teamsters, and drivers from \$3 to \$10 per week; printing trades from \$1 to \$5.28 per week; teachers from \$50 per year in Belleville, Ill., to a range of \$40 to \$100 per year in Pueblo, Colo.

Of the 19,704 wage earners included in this tabulation, 18,205 adopted the 5-day week.

No decreases were reported.

TABLE 2.—RECENT UNION WAGE CHANGES, BY INDUSTRY, OCCUPATION, AND LOCALITY, APRIL TO JULY, 1930

Industry, occupation, and locality	Date of change	Rate of wages		Hours per week	
		Before change	After change	Before change	After change
Building trades:					
Bricklayers—		<i>Per hour</i>	<i>Per hour</i>		
Albany, N. Y.	May 1	\$1.65	\$1.75	44	40
Lowell, Mass.	Apr. 1	1.50	1.55	44	40
Carpenters—					
Erie, Pa.	May 1	1.12½	1.15	44	40
Marshall, Tex.	May 12	1.00	1.00	44	40
Michigan City, Ind.	July 1	1.15	1.25	44	44
Worcester, Mass.	June 2	1.10	1.21	44	40
Cement finishers—					
Minneapolis, Minn.	May 1	1.00	1.25	18	18
St. Louis, Mo.	do.	1.50	1.57½	40	40
Painters—					
Los Angeles, Calif.	do.	1.00	1.00	44	40
Marshall, Tex.	do.	1.00	1.00	44	40
Plumbers and steamfitters—					
Des Moines, Iowa.	May 27	1.25	1.25	44	40
Detroit, Mich.	June 7	1.50	1.50	44	40
Nyack, N. Y.	May 1	1.37½	1.50	44	40
Paterson, N. J.	do.	1.50	1.65	18	18
Suffern, N. Y.	Apr. 1	1.37½	1.50	44	40
Summit, N. J.	do.	1.50	1.50	44	40
Taunton, Mass.	May 1	1.00	1.15	44	44
Sheet-metal workers—					
Denver, Colo.	June 2	1.25	1.25	44	40
San Diego, Calif.	June 1	1.06¼	1.06¼	44	40
All building trades—					
Kansas City, Mo.	July 1	(²)	1.00	44	40
Sacramento, Calif.	June 2	(²)	(¹)	44	40
Waterbury, Conn.	Apr. 15	(²)	(²)	44	40
Chauffeurs and teamsters:		<i>Per week</i>	<i>Per week</i>		
Gary, Ind., truck drivers.	June 9	30.00-40.00	39.00-43.00	10	10
New York, N. Y.—					
Chauffeurs.	May 9	18.00	19.00	19	19
Helpers.	do.	17.00	18.00	19	19
Scranton, Pa., delivery men.	July 2	25.00	35.00	(³)	(³)
Printing and publishing:					
Compositors—					
Fort Wayne, Ind.—					
Job work, day.	May 5	35.20	39.60	44	44
Job work, night.	do.	37.84	43.12	44	44
Hannibal, Mo.	June 1	39.00	40.00	48	48
Santa Barbara, Calif.—					
Newspaper, day.	Apr. 7	47.00	48.50	45	45
Newspaper, night.	do.	50.00	51.50	45	45
Electrotypers—					
Kansas City, Mo.	Apr. 30	46.00	48.00	44	44
Pittsburgh, Pa., job work.	July 1	47.50	50.00	46½	45
Pressmen—					
Newark, N. J.—					
Foremen.	Apr. 1	62.50	63.50	48	48
Journeyman.	do.	53.50	54.50	48	48
Stereotypers—					
Madison, Wis., news.	May 1	43.00	46.00	48	48
Stationary engineers:		<i>Per hour</i>	<i>Per hour</i>		
Kansas City, Mo.	do	{ \$0.90 .80	{ \$0.95 .85	18	18
Teachers:		<i>Per year</i>	<i>Per year</i>		
Belleville, Ill., high school.	do	(²)	\$50	18	18
Pueblo, Colo.—					
Supervisors.	Apr. 3	\$1,000-3,000	1,100-3,000	(²)	(²)
High school.		1,200-3,600	1,250-3,700	(²)	(²)
Junior high school.		900-2,400	950-2,500	(²)	(²)
Graded schools.		360-2,500	400-2,500	(²)	(²)
Miscellaneous:					
Sign and pictorial painters, Pacific coast cities.	Apr. 1	<i>Per day</i> \$8.00-12.00	<i>Per day</i> \$8.00-12.00	44	40

¹ Per day.² Not reported.³ Increase.⁴ No change.⁵ Irregular.

Real Wages in the United States, 1890-1926

IN A recently published study entitled "Real Wages in the United States, 1890-1926," Prof. Paul H. Douglas attempts to show, in a very comprehensive way, the trend of both money and real wages in the United States over the period 1890 to 1926. In preparing this study use was made of the existing material on wages, salaries, earnings, cost of living, and employment and, in addition, the author supplements existing information by constructing a new index of cost of living and by developing new measures of the probable amount of unemployment for various years.

Particular interest attaches, of course, to the author's findings regarding annual earnings. These are summarized by him in the concluding chapter of his study, as follows:

Annual Earnings of Employed Workers

THE average annual money earnings of workers in urban industries, employing 15,000,000 workers in 1920, did not advance appreciably during the 15 years from 1900 to 1914, being only 4 per cent higher than then in 1890-1899. If farm labor is included, the increase was 7 per cent. The great increase has come since 1920, the index for urban labor rising from 110 in that year to 129 in 1926, and for urban and farm labor together, from 116 to 135. The average gain between 1900 and 1926 over the 10 years 1890-1899 has amounted, for urban labor alone, to 7 per cent; and for urban and rural labor combined, to 11 per cent.

The increase of 35 per cent for the 17,000,000 workers in urban and rural industries was composed of a 23 per cent gain made by workers staying in industries in the same proportions as originally, and of a 12 per cent gain made by workers shifting from low-paid to better-paid occupations. Since this last source of gain resulted primarily from the movement from the farm to the cities, it is subject to some deduction for imponderable losses occasioned by the greater living costs of the cities.

Taking manufacturing alone, the increase in 1926 in the purchasing power of the annual earnings of the employed workers over the 1890-1899 base was 29 per cent, and over the 1914 base, 30 per cent.

While there was by no means any uniformity in the relative gains made by the 39 separate manufacturing industries, the deviations from the general average were not excessive. Thus, upon a 1914 base, the real earnings indexes of 10 industries did not vary from the average of 130 for all manufacturing by more than 3 points; in three industries the deviation was between 3 and 6 points, while in four industries it was between 6 and 9 points. In the case of 11 industries, the difference was between 9 and 12 points; in two, it ranged between 12 and 15, while in 9 it was more than 15. It is interesting to note that all of the industries in this latter class fell below the average and none exceeded it. These nine industries were:

Butter, cheese, and condensed milk.
Agricultural implements.
Shirts.
Lumber.
Boots and shoes.

Tobacco.
Saddlery and harness.
Carriages and wagons.
Beverages.

The last three are, of course, examples of obsolescent industries, while tobacco is one where the shift in demand to cigarettes has meant the substitution of a lower grade of labor.

The money and real earnings of those employed in the industries producing capital goods fluctuated more violently than in those producing intermediate products; and these, in turn, fluctuated more than those employed in the industries producing consumers' goods.

The increase in the real annual earnings of the employed workers in manufacturing was about the same as the increase in real hourly rates and earnings, but appreciably more than the rise in full-time weekly earnings. This may have been due in part, at least, to one or all of the following factors: (a) A decrease

in the proportion of lost time within the week, which would make actual earnings increase faster than full-time rates; (b) an increase in the relative use of various kinds of bonuses, which would raise the yearly, as well as the actual, hourly earnings above the hourly rates; (c) an increased tendency on the part of employers to pay their more efficient workers more than the standard rate.

In 1926 the real annual earnings of the transportation workers were 21 per cent above the average for the years 1890-1899 and 18 per cent above the average for 1914. If we include the workers in the telephone, telegraph, and gas and electrical industries, the relative gain over 1914 was 17 per cent.

The real yearly earnings of the bituminous coal miners in 1926 were 52 per cent above their average for the nineties, and 32 per cent above the average for 1914. In the case of the bituminous workers, the gain over 1914 was 70 per cent; and for the two branches combined, the average advance was 40 per cent.

The clerical and salaried workers in manufacturing and railroading could purchase only 3 per cent more with a year's work in 1926 than during the decade 1890-1899, and 6 per cent more than in 1914. The great expansion in clerical and administrative work, with its higher average reward, meant that if the manual and salaried workers were considered as a combined group, their increase was as great as that for the manual workers alone. The difference in remuneration between manual and strictly clerical work has, however, been greatly narrowed, and it is believed that the clerical workers have ceased to be a noncompeting group.

Government employees and ministers have also fared rather badly during the period. In 1926 Federal employees in the executive departments could purchase only 70 per cent as much as in the period 1892-1899, while postal employees could buy 96 per cent as much as then. While ministers were 12 per cent above their 1914 real annual salary, they were 2 per cent below the average of 1890-1899.

The one exception to the rule that the nonmanual workers have not fared as well as the manual workers is that of the teachers, who in 1926 were on a yearly basis 86 per cent above the real average for the nineties, and 30 per cent above that for 1914. This was in part accounted for, however, by the increase of approximately 25 per cent in the length of the school year since 1890.

The average annual gains or losses from the 1890-1899 base were as follows for the twenty-seven years of 1900-1926 inclusive:

(a) Gains: Teachers, 37 per cent; bituminous coal miners, 33 per cent; farm labor, 11 per cent; manufacturing workers, 7 per cent; steam railway workers, 5 per cent; street railway workers, 3 per cent; telephone employees, 1 per cent.

(b) Neither gain nor loss: Telegraph employees.

(c) Losses: Clerical workers, 4 per cent; postal employees, 13 per cent; ministers, 15 per cent; gas and electrical workers, 20 per cent; Federal employees in Washington, D. C., 24 per cent.

Unemployment and the Earnings of the Wage-Earning Class as a Whole

THE best estimate for the average unemployment among those attached to the manufacturing and transportation industries for the years 1889-1926 is 7.5 per cent. By including construction, the average since 1897 is raised to 8.7 per cent, while the inclusion of mining still further raises the average to 10.2 per cent.

The index of unemployment which has been computed agrees rather closely with "bench-mark" percentages which have been computed by independent methods for 1889, 1899, and 1915; and a belief in the correctness of its main outlines is strengthened by the fidelity with which it follows the movement of the business cycle.

In general, the decade of the nineties appears to have been characterized by a higher percentage of unemployment than most of the subsequent years, the average for manufacturing and transportation being 10.4 per cent, as compared with an average of 6.4 per cent for the subsequent 28 years of 1900-1927.

Because of this decrease in the volume of unemployment, the average real yearly income of the wage-earning class attached to manufacturing and to transportation, after making allowance for unemployment, showed a gain, during the 15 years from 1900 to 1914 inclusive, of 5 per cent over the average for the nineties. From 1916 to 1920, the workers in this group were on the average 15 per cent above their position of the nineties, instead of 8 per cent, as in the case of the employed workers alone. Here it should be noted that, if we use "union" hourly and full-time rates as the measurement of real earnings, a loss is shown for these years, whereas the data for the pay-roll industries show a more

appreciable increase. The average of the two gives slight increases in hourly and full-time weekly rates and earnings, bringing the real hourly index for 1919 to 5 per cent above 1915, and for 1920 to 9 per cent above 1915. The average actual real yearly earnings of the employed, on the other hand, were 9 per cent more in 1919 than they had been in 1915, and in 1920 they were 12 per cent more. Contrasted with both of these is the index of the relative earnings of the attached group as a whole, taking into account fluctuations in the proportions employed, as well as in the earnings of those who are actually employed. In 1919 this index was 19 per cent above the average for 1915, and in 1920 it was no less than 21 per cent above this base. It is thus apparent that the wider our net and the more the fluctuations in employment are taken into account, the more favorable does labor's position during the war and post-war period appear. Labor gained during this period, therefore, not in established weekly wage-rates, nor even appreciably in hourly wage-rates, but through (a) an increased use of bonuses, (b) less lost time within employment, (c) more overtime, and (d) a greatly reduced volume of unemployment.

Due to the high degree of unemployment in 1921 and 1922, the average percentage of unemployment in manufacturing and transportation for the six years 1921-1926 was 9.8, or virtually the same as for the period 1890-1899. The average increase in the real earnings of the labor supply was therefore no greater than that for the employed workers if we take the period as a whole. There was a difference, however, in the position of individual years.

Due to the smaller amounts of unemployment in 1925 and 1926, the real annual earnings of the wage-earners attached to manufacturing and transportation were 33 and 36 per cent, respectively, above the average for 1890-1899; while the increases shown for only those who were constantly employed were 26 and 28 per cent, respectively. It is safe to estimate, therefore, that the inclusion of the relative numbers employed, in addition to the earnings of those who continued to be employed throughout the period, raised the index for these final years from 7 to 8 per cent.¹

The addition of those attached to coal-mining, to the labor supply of manufacturing and transportation, gives virtually identical relatives of real earnings for the labor supply. The average annual gain for the entire group attached to these industries over their annual income during the nineties was 12.7 per cent.

When we take unemployment into account, the position of labor in the depression years is appreciably worse than when we consider only the earnings of the employed. In 1921 the real earnings of the employed in manufacturing and transportation actually rose by 2 per cent, while in 1914 the fall was but 1 per cent, in 1908 but 3 per cent, and in 1894 only 5 per cent. In contrast with this, the real purchasing power of the group which normally depended upon these occupations for employment fell by 16 per cent in 1921, by 8 per cent in 1914, by 12 per cent in 1908, and by 12 per cent in 1894. This was sufficient to bring the indexes for 1894, 1908, and 1914 down below the average for the nineties, and the index for 1921 to within 2 per cent of this average.

If we take into account unemployment in the building trades, but do not consider part time and absenteeism because of the impossibility of obtaining the necessary data, we find that, in 1926, the average earnings of those attached to the industry were, on the basis of union rates, 56 per cent higher than they had been during the years 1897-1899, and 64 per cent above the depressed year of 1914.

If we (a) estimate that the unemployment of general unskilled labor was equal to the average for the combined industrial groups of manufacturing, transportation, construction, and mining and (b) ignore relative variations in the amount of part time worked within a week, then we find that the real annual earnings of this class in 1926 were 20 per cent higher than they had been during the years 1897-1899, and somewhat higher than this if the decade 1890-1899, with its larger volume of unemployment, is used as the point of reference. The increase over 1914 was 28 per cent.

Other Features

THE workers have made other sources of gain during this period. Between 1890 and 1920 there was a decrease of 5 per cent in the number of dependents per gainfully employed worker, the increase in free income derived from the Government by 1926 was approximately 4 per cent, while the free services provided by private philanthropy and by employers amounted to approximately

¹ That is, in terms of 1890-1899.

1 and 2 per cent, respectively. When these are added to the gain of 35 per cent in the purchasing power of those employed, and to the increase of from 7 to 8 per cent in the real earnings of the wage-earning class through the lower rate of unemployment, it is apparent that in 1926 the workers enjoyed an income which was approximately 55 per cent higher than during the nineties.

From a comparison of budgetary studies in 1901 and 1918, the decrease in the proportions spent on food by comparable groups and the increase in the percentages expended for general purposes are a further indication of the rise in real incomes during this period.

Real earnings in manufacturing did not increase as rapidly from 1899 to 1925 as the increase in average physical productivity. Nor did they in nearly every other line of urban work for which we have comparable measurements. They did increase as rapidly, however, as the increase in the average value productivity. From 1899 to 1925, the increase in average value productivity for nine manufacturing groups was 26 per cent, while the increase in real earnings for these same groups was 25 per cent. Up to and including 1919, real earnings were increasing in manufacturing at a faster rate than the average value product. Since 1919, however, they have in general been decreasing.

The proportion which wages and salaries formed of the total value product of manufacturing increased from 1899 to 1921, but has been decreasing since then. By 1927, however, it was still slightly above the proportions prevailing in 1899.

It is submitted that the chief cause for the increase in real wages has been the general increase in productivity. The threat of unionism may well have served to maintain money rates of wages during 1921 so that, when more workers were added, the net income of the wage-earning class in terms of the reduced living costs was much higher than before. This could not have been maintained, however, had not the increase in productivity occurred. Other causes may well have been the reduction in the rate of growth of the labor supply and the greater increase in the volume of capital than of labor. The rôle of prohibition is conjectural. The decline, in recent years, in the relative value of farm products has enabled the city industries, and to some degree the city workers, to profit at the expense of the country.

The real earnings of the employed were relatively constant from 1923 to 1927. There was an increase of physical productivity during this time, and apparently an increase, also, in value productivity. It is suggested that this failure of real wages to advance was at least one cause of the rising profits during this period, and was consequently an appreciable factor in the extraordinary increase of stock market values which occurred.

Some of the effects of the increase in real earnings have been the increased attendance at high schools and colleges, an increased volume of saving, and a decline thus far in the strength of radical political and economic thought.

The greatest need for the improvement of our wage statistics is that of a continuing and comprehensive index of unemployment.

The margin of error to which the statistics of real earnings are subject does not, in the opinion of the author, exceed 5 per cent, and may well be less.

Income and Wages in the South

A STUDY of income and wage differentials between the South, as represented by the 10 Southern States of Virginia, North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, and Louisiana, and the remainder of the country is presented in a recent book entitled "Income and Wages in the South."¹

The information is based for the most part on existing published material, largely official. The figures on agricultural wages and on wage rates paid on Federal-aid road projects, given in this review of the study, were derived from publications of the United States Department of Agriculture. The other wage data given herein were based

¹ Heer, Clarence. *Income and wages in the South*. Chapel Hill, University of North Carolina Press, 1930.

on the United States Census of Manufactures for 1927, bulletins of the United States Bureau of Labor Statistics, and, in the case of port wages, on a report of the United States Bureau of Navigation.

The study shows that money incomes and money wages are considerably lower in the South than in the rest of the country. The differential is greatest in agriculture, where it is regarded as the most serious because of the fact that agriculture is the main source of livelihood of nearly half of the population of the South. In each of the years 1899, 1909, 1919, 1924, and 1927, the annual gross agricultural return per adult male worker was less than 60 per cent of the corresponding gross value for the remainder of the country, according to figures computed by the writer from census data and from information furnished by the United States Department of Agriculture. The wages of hired farm laborers, which constitute one of the major working-class groups in the South, are correspondingly lower than in the rest of the country. In July, 1929, the daily wages of casual laborers, not boarded, averaged \$1.55 for the 10 Southern States, or 48 per cent of the average of \$3.25 for the remainder of the country. Even with the addition of perquisites, which lessens the disparity, the wages of both casual and noncasual workers are substantially lower than in the rest of the country. The cash earnings per day in 1926 plus perquisites of casual farm laborers averaged only 55 per cent of the average for the remainder of the country, according to the study, the average for the South being \$2.37 and for the rest of the country, \$4.31. The writer points out that casual farm labor in the South is largely performed by Negroes, and "may there be obtained at less than half the average wage required in other parts of the country." In 1925, monthly earnings plus perquisites of noncasual farm laborers averaged \$53.82 for the 10 Southern States, as compared with an average of \$81.40 for all other States combined.

While the South is still predominantly agricultural, industry is expanding rapidly, the number of factory employees in the 10 Southern States under consideration having increased by 9 per cent between 1919 and 1927. The most important industrial activity of the South is textile manufacturing, this industry in 1927 employing over 320,000 workers, or nearly a third of the total number of southern factory wage earners. The lumber and timber industry is next in importance as a source of employment, and in 1927 had 215,000 workers, or slightly over one-fifth of the total number of industrial workers in the South. The only other industry in the South which gave employment to more than 40,000 persons in 1927 was railroad repair shops, which had about 60,000 workers.

In the case of average wages for entire industries, the extent to which southern wages fall short of average wages in similar industries in other parts of the country is determined largely by the relative proportions of skilled and unskilled workers employed. In the southern industries which have a high percentage of unskilled workers the disparity between southern wage levels and those for the remainder of the country is large. Where a high percentage of skilled workers is employed, the difference is relatively small. Thus, in railroad repair shops in 1927 southern wages averaged 89.5 per cent of the average for these shops in other sections, and in foundries and machine shops the percentage was 80.4 per cent, whereas in the knit-goods

industry the percentage was 59.6 per cent, in the cotton goods industry, 66.3 per cent, and in the lumber and timber industry, 62.5 per cent.

In individual occupations, also, the wage differential tends to vary with the degree of skill, reaching the maximum in unskilled employments and the minimum in occupations requiring a high degree of skill. This is true not only in manufacturing establishments but also in various other lines. For example, in 1928 average hourly earnings of common labor in sawmills were 54.6 per cent of the average for the rest of the country. The median hourly entrance wage rate for unskilled street laborers directly hired by 369 southern cities in 1928 was 56.4 per cent of the median rate of 2,257 cities outside of the South. For common laborers employed on Federal-aid road projects in the South, average hourly rates in 1928 were 60.7 per cent of those elsewhere. Average hourly earnings of common labor in foundries in 1927 were 57.2 per cent and in machine shops 62.7 per cent of those elsewhere. The median of the hourly rates paid common labor by the United States Naval Establishment in 1929 at three southern ports was 64.3 per cent of the median of seven northern ports.

In the organized trades the southern wage level approaches more closely the wage level in other sections of the country. A compilation of median hourly wage rates as of May 15, 1929, for various organized trades in 8 southern cities and in 32 other cities located in widely scattered parts of the remainder of the country shows that the median hourly rate for bricklayers was the same in the South as elsewhere; for carpenters, the southern rate was 75 per cent of the rate elsewhere; for plumbers, 90.9 per cent; for inside wiremen, 81.8 per cent; for painters, 77.8 per cent; for plasterers, 83.3 per cent; for compositors on book and job work and for newspaper compositors on day work, 89.9 and 87.3 per cent, respectively; and for typesetting-machine operators on book and job work and on newspapers, 87.3 and 87.1 per cent, respectively.

Wages of Common and Semiskilled Labor in Louisiana, 1929

THE following wage scales for common and semiskilled labor in Louisiana for December 31, 1929, are taken from the Fifteenth Biennial Report of the Department of Labor and Industrial Statistics of Louisiana, 1929-30:

WAGE SCALES OF COMMON AND SEMISKILLED WORKERS IN LOUISIANA
DECEMBER 31, 1929

Class of workers	Hours per day	Wage rate per day
Building laborers.....	8	\$2.00
Canners.....	10	1.25
Clothing-factory workers.....	10	1.25
Cotton-seed-products workers.....	12	2.25
Ice, light, and bottling workers.....	10	1.50
Workers in—		
Lumbering plants.....	10	1.75
Naval stores.....	10	1.75
Oil fields.....	10	3.00
Rice mills.....	12	2.00
Sugar-cane fields and on farms.....	12	1.25
Sugar mills (factory help).....	12	2.50

Dismissal Wages for Temporary Workers in Japan

THE Japanese factory law requires an employer, when he wishes to dismiss a worker, to give him two weeks' notice in advance or pay him the equivalent of two weeks' wages, according to Industrial and Labor Information, June 2, 1930. Temporary workers, however, have not been included under the provisions and may be engaged for two or three weeks with the prefectural approval. There is an increasing tendency among factory owners to employ temporary workers in order to avoid the payment of the statutory indemnity. The Conference of Factory Inspectors which met at the Japanese Bureau of Social Affairs April 14 and 15, 1930, decided that persons engaged in the same work as permanent employees should be considered as permanent workers and be entitled to the statutory dismissal wage when discharged at the employer's convenience.

Wages of Metal Workers in Switzerland, 1929

THE average wages paid in 1929 to workers in the metal and machine and the building and the wood industries in Switzerland are given in the May and June issues of *La Vie Économique*, published by the Federal Department of Public Affairs. These figures are reported by the National Workmen's Compensation Fund for workmen injured in industrial accidents.

The following table shows the average daily wages of different classes of workers in the metal and machine, building, and wood industries in 1929:

AVERAGE DAILY WAGES OF WORKERS IN SPECIFIED INDUSTRIES IN SWITZERLAND
IN 1929

[Conversions into United States currency on basis of franc = 19.3 cents]

Class of workers	Average daily wages of workers in—					
	Metal and machine industries		Building industry		Wood industries	
	Francs	United States currency	Francs	United States currency	Francs	United States currency
Foremen and master workmen.....	16.65	\$3.21	16.03	\$3.09	15.63	\$3.02
Skilled and semiskilled workers.....	12.08	2.33	13.19	2.55	11.69	2.26
Unskilled workers.....	9.50	1.83	10.23	1.97	8.85	1.71
Women, 18 years of age and over.....	6.33	1.22				
Young persons, under 18 years of age.....	4.65	.90	7.64	1.47	5.07	.98

Basic Wage and Standard Hours in Queensland

THE Industrial Court of Queensland, acting under the industrial conciliation and arbitration act of 1929, has recently rendered an award maintaining the present figures for both the basic wage and the standard week. For some time past the minimum basic wage has been £4 5s. (\$20.68) per week, and the standard week since 1925 has been 44 hours. The public service commissioner and the

State railways department had asked for a reduction of the basic wage and an extension of the standard week to 48 hours, and a number of employers had joined them in the application. The unions, on the other hand, asked for an increase in the basic wage and a reduction of the standard week to 40 hours. According to the text of the award, given in the Queensland Industrial Gazette for April, 1930, the court held that the evidence of a decline in the cost of living was not sufficient to justify a reduction of the basic wage at the time. There was evidence, however, of a downward trend, which if continued would justify a reduction, and for that reason the court would make a fresh declaration on the basic wage in July. Further, the court found that, with the exception of the public service commissioner and the representative of the State railways department, the majority of the employers were not really desirous of a reduction.

The court does not profess to know the reason for this attitude of the private employers. It was not disclosed to the court. But it may be they fear that a reduction of wages, more particularly of Crown employees' wages, coupled with the severe curtailment of Government loan expenditure, would involve too great a decrease of the purchasing power of the community, to the detriment of traders and manufacturers, who, under existing conditions, could not hope to make up the loss by increasing their operations outside the State, even with the assistance of a reduced wage.

As to the standard hours, the court found that the employers, with the two exceptions noted in regard to the wage, had likewise failed to make out any case for reduction. In fact, "no serious attempt was made by any party to deal with the question of the merits of the 44-hour week as compared with the 48-hour week from the viewpoint of fatigue and output." The representatives of the public service and of the railways department, however, had presented satisfactory evidence that the cost of the reduction of hours as from July 1, 1925, had become an unfair burden in both cases, and the week should be reduced so far as those services were concerned. The present application was a general one, however, and no exceptions could be made in the award for the benefit of particular services or industries. If a separate application should be made, the position would be entirely changed. The court therefore declared as its decision:

1. That the basic wage shall remain as at present; and
2. That the maximum weekly hours to be worked in industry—the standard hours—shall be 44.

TREND OF EMPLOYMENT

Summary for June, 1930

EMPLOYMENT decreased 1.8 per cent in June, 1930, as compared with May, and pay-roll totals decreased 2.7 per cent, according to reports made to the Bureau of Labor Statistics.

The industrial groups surveyed, the number of establishments reporting in each group, the number of employees covered, and the total pay rolls for one week, for both May and June, together with the per cent of change in June, are shown in the following summary:

SUMMARY OF EMPLOYMENT AND PAY-ROLL TOTALS, MAY AND JUNE, 1930

Industrial group	Estab- lish- ments	Employment		Percent of change	Pay roll in 1 week		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
1. Manufacturing.....	13,863	3,353,838	3,267,468	-2.5	\$89,543,248	\$85,713,772	-4.0
2. Coal mining.....	1,437	296,865	291,399	-2.5	7,616,079	7,338,088	-3.4
Anthracite.....	153	96,761	93,674	-3.2	3,175,815	3,030,505	-4.6
Bituminous.....	1,284	202,104	197,725	-2.2	4,440,264	4,327,583	-2.5
3. Metalliferous mining.....	345	54,559	52,760	-3.3	1,691,146	1,526,045	-1.7
4. Quarrying and non- metallic mining.....	731	38,225	38,636	-0.5	1,094,961	1,013,002	+0.8
5. Crude petroleum pro- duction.....	449	25,068	25,218	+0.5	848,971	866,359	+2.0
6. Public utilities.....	10,941	766,766	769,375	+0.3	23,629,044	23,357,480	+1.4
Telephone and telegraph.....	7,451	350,888	351,215	+0.1	9,804,203	9,912,691	+0.2
Power, light and water.....	3,015	257,724	260,692	+1.2	8,115,581	8,375,866	+3.2
Electric railroad opera- tion and maintenance, exclusive of car shops.....	475	158,154	157,468	-0.4	5,019,260	5,068,923	+1.0
7. Trade.....	9,289	317,498	319,071	-2.3	8,079,796	8,067,815	-(?)
Wholesale.....	2,072	65,755	65,585	-0.3	2,078,975	2,104,811	+1.2
Retail.....	7,217	251,653	244,436	-2.9	5,991,821	5,963,004	-0.5
8. Hotels.....	2,069	159,093	159,671	+(?)	2,742,984	2,732,847	-0.3
9. Canning and preserving.....	779	25,418	44,762	+26.4	659,945	792,714	+21.8
Total.....	39,993	5,649,879	5,558,660	-1.8	135,197,244	131,428,122	-2.7

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION							
New England ⁴	2,958	467,911	459,822	-1.7	\$11,526,400	\$11,227,389	-2.6
Middle Atlantic ⁵	7,086	1,457,054	1,431,066	-1.7	41,180,244	40,235,312	-2.3
East North Central ⁶	9,016	1,500,671	1,458,292	-2.8	43,688,541	41,669,172	-4.6
West North Central ⁷	4,374	320,722	317,029	-1.2	8,231,473	8,129,749	-1.2
South Atlantic ⁸	4,477	499,452	490,256	-1.8	10,400,004	10,211,966	-2.5
East South Central ⁹	2,239	211,631	207,308	-2.0	4,175,292	4,037,199	-3.3
West South Central ¹⁰	3,273	203,821	202,560	-0.6	4,909,632	5,043,997	+0.9
Mountain ¹¹	1,545	95,107	94,666	-0.5	2,678,752	2,633,947	-1.7
Pacific ¹²	4,935	293,501	297,061	+1.2	8,157,816	8,239,391	+1.0
All divisions.....	39,993	5,649,879	5,558,660	-1.8	135,197,244	131,428,122	-2.7

¹ Weighted per cent of change for the combined 54 manufacturing industries repeated from Table 2, p. 189; the remaining per cents of change, including total, are unweighted.

² Less than one-tenth of 1 per cent.

³ Cash payments only, see text, p. 209.

⁴ Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont.

⁵ New Jersey, New York, Pennsylvania.

⁶ Illinois, Indiana, Michigan, Ohio, Wisconsin.

⁷ Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota.

⁸ Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia.

⁹ Alabama, Kentucky, Mississippi, Tennessee.

¹⁰ Arkansas, Louisiana, Oklahoma, Texas.

¹¹ Arizona, Colorado, Idaho, Montana, New Mexico, Nevada, Utah, Wyoming.

¹² California, Oregon, Washington.

Five of the thirteen industrial groups showed increased employment in June as compared with May, canning reporting the greatest gain—a seasonal one—of 26.4 per cent. Power, light, and water plants increased 1.2 per cent in employment, and crude petroleum, telephone and telegraph, and hotels reported smaller increases. The remaining eight industrial groups showed decreased employment; metalliferous mining decreased 3.3 per cent, anthracite and bituminous coal mining reported losses in number of employees of 3.2 and 2.2 per cent, respectively, and retail trade had 2.9 per cent fewer employees in June. Manufacturing industries, which have decreased in employment from May to June in five of the seven years preceding 1930, reported a drop of 2.5 per cent in employment in June, and quarrying, electric-railroad operation, and wholesale trade reported decreases of one-half of 1 per cent or less in employment over the month period.

The figures of the several industrial groups are not weighted according to the relative importance of each group, and therefore the per cents of change shown by the total figures represent only the change in the establishments reporting. (Compare note 1, manufacturing industries, summary table, p. 184.)

For convenient reference the latest data available relating to all employees, excluding executives and officials, on Class I railroads, drawn from Interstate Commerce Commission reports, are shown in the following statement. These reports are for the months of April and May instead of for May and June, consequently the figures can not be combined with those presented in the foregoing table.

EMPLOYMENT AND PAY-ROLL TOTALS, CLASS I RAILROADS

Industry	Employment		Per cent of change	Amount of pay roll in entire month		Per cent of change
	Apr. 15, 1930	May 15, 1930		April, 1930	May, 1930	
Class I railroads.....	1, 555, 692	1, 584, 643	+1.9	\$217, 704, 996	\$221, 588, 551	+1.8

The total number of employees included in this summary is 6,543,303, whose combined earnings in one week amounted to approximately \$182,500,000.

1. Employment in Selected Manufacturing Industries in June, 1930

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, May and June, 1930

EMPLOYMENT in manufacturing industries decreased 2.5 per cent in June as compared with May, and pay-roll totals decreased 4 per cent. These per cents of change in June in employment and in earnings are based upon returns made by 13,375 establishments in 54 of the principal manufacturing industries of the United States. These establishments in June, 1930, had 3,172,039 employees whose combined earnings in one week were \$83,275,148.

The bureau's weighted index of employment in June, 1930, is 85.5, as compared with 87.7 for May, 1930, 89.1 for April, 1930, and 98.8 for June, 1929; the index of pay-roll totals for June, 1930, is 84.1, as compared with 87.6 for May, 1930, 89.8 for April, 1930, and 102.8 for June, 1929. The monthly average for 1926 equals 100.

The food group alone showed both increased employment and earnings in June as compared with May, the tobacco products and the nonferrous metals groups reporting increased pay-roll totals coupled with decreases in employment. The vehicle group showed the greatest decrease in both items (4.9 per cent in employment and 8.4 per cent in earnings), due largely to decreased operations in the automobile industry.

Twelve of the fifty-four separate industries reported increased employment and 18 industries showed increased earnings in June. The greatest increases in employment were: Men's clothing, 3.9 per cent; slaughtering, 2.9 per cent; cement, 2.4 per cent; and woolen and worsted goods, 2.3 per cent. The ice-cream industry reported a seasonal increase of 1.6 per cent in employment and baking reported a gain of 1.1 per cent in number of employees. Smaller increases were reported in flour, cast-iron pipe, structural ironwork, paper boxes, chewing and smoking tobacco, and automobile tires.

The greatest decreases in employment from May to June were seasonal ones of 26.1 and 14.5 per cent in fertilizers and agricultural implements, respectively. The automobile industry decreased 6.8 per cent in employment and 12.2 per cent in earnings in June as compared with May. The iron and steel industry reported 3.3 per cent fewer employees and decreased earnings of 5.5 per cent. Foundries decreased 2.8 per cent in employment and cotton-goods establishments reported a loss of 3.2 per cent in employment in June as compared with the previous month.

Employment statistics concerning six additional manufacturing industries are collected and published in the bureau's monthly employment survey, but the data are not yet included in the bureau's indexes. Of these six industries, radio alone showed improved employment conditions over the month period, a gain of 11.4 per cent in employees and an increase of 7.5 per cent in pay-roll totals. The five remaining industries—aircraft, jewelry, paint, rayon, and rubber goods—reported decreases in employment ranging from 1 to 3.3 per cent.

The Mountain geographic division alone had more employees in June than in May, the eight remaining divisions reporting decreased employment ranging from 3.7 per cent in the East South Central division to 1.1 per cent in the Pacific division. The East North Central division, which is most affected by the changing conditions in the automobile industry, reported a decrease of 3.4 per cent in employment and a decrease of 6.1 per cent in pay-roll totals. Decreased earnings were also reported in seven of the remaining eight geographic divisions, the West South Central being the only division which did not show a decline in pay-roll totals over the month period.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN MAY AND JUNE, 1930, BY INDUSTRIES

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Food and kindred products....	1,932	234,280	236,972	(1)	\$6,198,702	\$6,301,318	(1)
Slaughtering and meat pack- ing.....	216	88,201	90,766	+2.9	2,363,885	2,423,552	+2.5
Confectionery.....	337	34,317	33,812	-1.5	647,418	662,424	+2.3
Ice cream.....	347	15,680	15,928	+1.6	527,444	532,316	+0.9
Flour.....	345	15,190	15,259	+0.5	409,876	421,524	+2.8
Baking.....	721	69,502	70,267	+1.1	1,901,946	1,924,762	+1.2
Sugar refining, cane.....	16	11,390	10,940	-4.0	348,133	336,740	-3.3
Textiles and their products....	2,479	581,936	568,195	(1)	10,615,157	10,253,449	(1)
Cotton goods.....	479	187,462	181,415	-3.2	2,765,482	2,616,264	-5.4
Hosiery and knit goods.....	363	95,021	94,003	-1.1	1,640,276	1,651,233	+0.7
Silk goods.....	287	61,084	58,983	-3.4	1,175,969	1,123,020	-4.5
Woolen and worsted goods.....	189	54,439	55,684	+2.3	1,193,610	1,201,183	+0.6
Carpets and rugs.....	30	20,573	18,685	-9.2	418,692	353,259	-15.6
Dyeing and finishing textiles.....	118	35,073	33,414	-4.7	850,318	752,298	-11.5
Clothing, men's.....	350	61,596	63,990	+3.9	1,157,623	1,304,528	+12.7
Shirts and collars.....	121	19,392	19,007	-2.0	264,952	264,113	-0.3
Clothing, women's.....	419	32,459	29,703	-8.5	815,988	710,566	-12.9
Millinery and lace goods.....	123	14,837	13,311	-10.3	332,247	276,985	-16.6
Iron and steel and their prod- ucts.....	2,006	663,708	663,517	(1)	20,155,415	19,158,878	(1)
Iron and steel.....	206	269,808	260,993	-3.3	8,390,398	7,930,594	-5.5
Cast-iron pipe.....	41	11,520	11,565	+0.4	278,649	268,774	-3.5
Structural ironwork.....	176	29,673	29,844	+0.6	889,621	885,001	-0.5
Foundry and machine-shop products.....	1,108	259,876	252,548	-2.8	7,624,289	7,243,975	-5.0
Hardware.....	72	28,694	27,801	-3.1	650,755	607,598	-6.6
Machine tools.....	152	33,009	32,049	-2.9	969,244	925,896	-4.5
Steam fittings and steam and hot-water heating appara- tus.....	112	30,485	28,217	-7.4	817,359	747,343	-8.6
Stoves.....	139	20,643	20,500	-0.7	535,100	549,697	+2.7
Lumber and its products.....	1,442	200,691	204,966	(1)	4,512,243	4,371,090	(1)
Lumber, sawmills.....	683	126,937	123,842	-2.4	2,634,271	2,558,905	-2.9
Lumber, millwork.....	335	30,092	29,310	-2.6	726,623	704,095	-3.1
Furniture.....	424	52,662	51,814	-1.6	1,151,349	1,108,090	-3.8
Leather and its products.....	459	133,641	130,256	(1)	2,653,533	2,556,434	(1)
Leather.....	137	26,480	25,953	-2.0	652,308	639,985	-1.9
Boots and shoes.....	322	107,161	104,303	-2.7	2,001,225	1,946,449	-2.7
Paper and printing.....	1,283	217,514	215,580	(1)	7,327,420	7,237,710	(1)
Paper and pulp.....	211	60,745	60,255	-0.8	1,643,581	1,609,487	-2.1
Paper boxes.....	193	18,720	18,753	+0.2	421,985	427,326	+1.3
Printing, book and job.....	439	54,754	53,952	-1.5	1,880,074	1,854,879	+1.3
Printing, newspapers.....	440	83,295	82,620	-0.8	3,381,780	3,346,018	-1.3
Chemicals and allied products.....	411	107,318	104,027	(1)	3,223,671	3,186,428	(1)
Chemicals.....	148	38,373	38,044	-0.9	1,077,550	1,064,822	-1.2
Fertilizers.....	182	11,101	8,203	-26.1	219,904	175,472	-20.2
Petroleum refining.....	81	57,844	57,780	-0.1	1,926,217	1,946,134	+1.0
Stone, clay, and glass products.....	1,044	125,703	123,618	(1)	3,165,463	3,138,967	(1)
Cement.....	115	24,655	25,242	+2.4	725,891	772,233	+6.4
Brick, tile, and terra cotta.....	667	36,814	36,764	-0.1	861,690	865,458	+0.4
Pottery.....	120	18,780	18,044	-3.9	422,587	393,949	-6.8
Glass.....	142	45,454	43,568	-4.1	1,155,295	1,107,327	-4.2
Metal products, other than iron and steel.....	244	49,983	49,133	(1)	1,231,266	1,234,066	(1)
Stamped and enameled ware.....	78	18,215	17,764	-2.5	409,075	407,991	-0.3
Brass, bronze, and copper products.....	166	31,768	31,369	-1.3	822,191	826,075	+0.5
Tobacco products.....	225	59,240	59,093	(1)	948,472	974,287	(1)
Chewing and smoking to- bacco and snuff.....	26	8,713	8,753	+0.5	141,786	146,049	+3.0
Cigars and cigarettes.....	199	50,527	50,340	-0.4	806,686	828,238	+2.7

See footnotes at end of table.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL MANUFACTURING ESTABLISHMENTS IN MAY AND JUNE, 1930, BY INDUSTRIES—Continued

Industry	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Vehicles for land transportation	1,290	523,644	494,308	(¹)	\$16,855,914	\$15,234,409	(¹)
Automobiles.....	212	363,121	338,353	-6.8	11,936,677	10,484,713	-12.2
Carriages and wagons.....	51	1,353	1,278	-5.5	30,799	29,418	-4.5
Car building and repairing, electric-railroad.....	452	29,266	28,977	-1.0	926,822	926,976	(+)
Car building and repairing, steam-railroad.....	575	129,904	125,700	-3.2	3,961,616	3,793,302	-4.2
Miscellaneous industries	998	427,280	417,803	(¹)	12,655,992	12,036,736	(¹)
Agricultural implements.....	87	28,615	24,468	-14.5	785,030	620,618	-20.9
Electrical machinery, appa- ratus and supplies.....	213	192,037	186,964	-2.6	6,008,302	5,824,392	-3.1
Pianos and organs.....	70	6,280	6,018	-4.2	175,628	161,956	-7.8
Rubber boots and shoes.....	11	15,649	14,924	-4.6	358,874	332,364	-7.4
Automobile tires.....	42	49,046	49,486	+0.9	1,584,855	1,465,341	-7.5
Shipbuilding.....	87	40,740	40,514	-0.6	1,257,840	1,193,441	-5.1
Rayon ²	17	23,798	23,416	-1.6	510,887	474,277	-7.2
Radio ³	40	18,111	20,167	+11.4	504,170	542,112	+7.5
Aircraft ³	49	9,238	9,144	-1.0	308,955	298,574	-3.4
Jewelry ³	121	14,030	13,717	-2.2	360,908	353,675	-2.0
Paint and varnish ³	186	14,630	14,153	-3.3	422,582	402,471	-4.8
Rubber goods, other than rubber boots, shoes, tires, and tubes ³	75	15,106	14,832	-1.8	377,961	367,515	-2.8
All industries	13,863	3,353,938	3,267,468	(¹)	\$9,543,248	\$8,713,772	(¹)

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION ⁴							
New England.....	1,552	368,910	350,925	-2.4	\$8,663,788	\$8,327,668	-3.9
Middle Atlantic.....	3,569	950,978	929,243	-2.3	26,690,425	25,846,495	-3.2
East North Central.....	3,391	1,131,625	1,093,040	-3.4	33,558,957	31,505,676	-6.1
West North Central.....	1,196	177,614	175,149	-1.4	4,618,068	4,454,443	-3.5
South Atlantic.....	1,644	341,882	334,444	-2.2	6,756,518	6,483,897	-4.0
East South Central.....	655	123,150	118,619	-3.7	2,342,816	2,238,799	-4.4
West South Central.....	773	102,872	101,448	-1.4	2,436,908	2,439,811	+0.1
Mountain.....	246	30,945	31,062	+0.4	881,279	862,276	-2.2
Pacific.....	837	125,962	124,538	-1.1	3,504,309	3,554,707	+1.1
All divisions	13,863	3,353,938	3,267,468	(¹)	\$9,543,248	\$8,713,772	(¹)

¹ The per cent of change has not been computed for the reason that the figures in the preceding columns are unweighted and refer only to the establishments reporting; for the weighted per cent of change, wherein proper allowance is made for the relative importance of the several industries, so that the figures may represent all establishments of the country in the industries here represented, see Table 2.

² Less than one-tenth of 1 per cent.

³ The rayon industry was surveyed for the first time for the January-February, 1929, comparison, the radio industry for the March-April, 1929, comparison, the aircraft, jewelry, and paint and varnish industries for the February-March, 1930, comparison, and the rubber goods industry for the March-April, 1930, comparison, and, since the data for computing relative numbers are not yet available, these industries are not included in the bureau's indexes of employment and pay-roll totals. The total figures for all manufacturing industries given in the text, p. 185, do not include rayon, radio, aircraft, jewelry, paint and varnish, or rubber goods.

⁴ See footnotes 4 to 12, p. 184.

TABLE 2.—PER CENT OF CHANGE, MAY TO JUNE, 1930, 12 GROUPS OF MANUFACTURING INDUSTRIES AND TOTAL OF ALL INDUSTRIES

[Computed from the index numbers of each group, which are obtained by weighting the index numbers of the several industries of the group, by the number of employees, or wages paid, in the industries]

Group	Per cent of change, May to June, 1930		Group	Per cent of change, May to June, 1930	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.....	+1.1	+1.6	Stone, clay, and glass products..	-1.5	-1.1
Textiles and their products.....	-2.6	-4.0	Metal products, other than iron and steel.....	-1.6	+0.3
Iron and steel and their prod- ucts.....	-2.9	-4.8	Tobacco products.....	-0.2	+2.8
Lumber and its products.....	-2.2	-3.0	Vehicles for land transportation..	-4.9	-8.4
Leather and its products.....	-2.6	-2.3	Miscellaneous industries.....	-2.7	-5.4
Paper and printing.....	-1.0	-1.2			
Chemicals and allied products..	-3.4	-1.5	All industries.....	-2.5	-4.0

Comparison of Employment and Pay-Roll Totals in Manufacturing Industries, June, 1930, and June, 1929

THE LEVEL of employment in manufacturing industries in June, 1930, was 13.5 per cent lower than in June, 1929, and pay-roll totals were 18.2 per cent lower.

Three industries only—shipbuilding, newspaper printing, and chewing and smoking tobacco—had more employees at the end of the 12-month period than at the beginning. Two of the foregoing industries, shipbuilding and newspaper printing, reported increased earnings over the year interval, as did also the petroleum-refining industry, which coupled an increase of 1.4 per cent in earnings with a decrease of 2.1 per cent in employment in the year comparison.

The most notable decreases over the year interval were in the automobile, agricultural implement, rubber tire, millwork, machine tool, carpet, sawmill, brick, piano, and carriage and wagon industries.

Each of the nine geographic divisions reported fewer employees and decreased earnings in June, 1930, as compared with June, 1929; the greatest decrease in both items was in the East North Central division.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JUNE, 1930, WITH JUNE, 1929

[The per cents of change for each of the 12 groups of industries and for the total of all industries are weighted in the same manner as are the per cents of change in Table 2]

Industry	Per cent of change June, 1930, com- pared with June, 1929		Industry	Per cent of change June, 1930, com- pared with June, 1929	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Food and kindred products.	-3.6	-3.0	Textiles and their products..	-14.0	-22.8
Slaughtering and meat packing.....	-1.5	-0.8	Cotton goods.....	-16.0	-22.8
Confectionery.....	-4.6	-4.8	Hosiery and knit goods.....	-9.0	-18.6
Ice cream.....	-6.7	-6.6	Silk goods.....	-12.0	-22.4
Flour.....	-1.5	-0.1	Woolen and worsted goods..	-16.9	-20.6
Baking.....	-4.7	-4.1	Carpets and rugs.....	-25.7	-43.3
Sugar refining, cane.....	-4.1	-4.1	Dyeing and finishing tex- tiles.....	-11.0	-20.6

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JUNE, 1930, WITH JUNE, 1929—Continued

Industry	Per cent of change June, 1930, com- pared with June, 1929		Industry	Per cent of change June, 1930, com- pared with June, 1929	
	Number on pay roll	Amount of pay roll		Number on pay roll	Amount of pay roll
Textiles and their products— Continued.			Stone, clay, and glass prod- ucts	-14.1	-17.7
Clothing, men's.....	-12.9	-25.4	Cement.....	-2.5	-0.6
Shirts and collars.....	-12.3	-21.9	Brick, tile, and terra cotta.....	-20.8	-25.6
Clothing, women's.....	-13.1	-22.6	Pottery.....	-11.4	-21.1
Millinery and lace goods.....	-12.6	-23.8	Glass.....	-12.2	-15.5
Iron and steel and their products	-13.5	-20.2	Metal products, other than iron and steel	-18.3	-24.8
Iron and steel.....	-9.8	-16.3	Stamped and enameled ware.....	-12.8	-18.6
Cast-iron pipe.....	-7.4	-7.3	Brass, bronze, and copper products.....	-20.7	-26.9
Structural ironwork.....	-6.2	-8.4	Tobacco products	-2.5	-4.6
Foundry and machine-shop products.....	-15.9	-22.9	Chewing and smoking to- bacco and snuff.....	+0.9	-3.2
Hardware.....	-14.1	-23.8	Cigars and cigarettes.....	-2.9	-4.8
Machine tools.....	-21.3	-31.9	Vehicles for land transpor- tation	-19.8	-24.3
Steam fittings and steam and hot-water heating ap- paratus.....	-18.1	-26.2	Automobiles.....	-26.3	-31.9
Stoves.....	-15.8	-21.0	Carriages and wagons.....	-25.1	-19.4
Lumber and its products	-20.3	-22.8	Car building and repairing, electric-railroad.....	-3.3	-2.7
Lumber, sawmills.....	-20.0	-19.3	Car building and repairing, steam-railroad.....	-12.5	-15.3
Lumber, millwork.....	-23.9	-23.8	Miscellaneous industries	-16.8	-18.0
Furniture.....	-19.1	-20.4	Agricultural implements.....	-27.9	-38.1
Leather and its products	-5.5	-17.7	Electrical machinery, appa- ratus, and supplies.....	-16.9	-15.9
Leather.....	-5.6	-9.0	Pianos and organs.....	-29.6	-37.2
Boots and shoes.....	-5.4	-20.4	Rubber boots and shoes.....	-20.1	-28.1
Paper and printing	-1.6	-1.5	Automobile tires.....	-24.4	-26.5
Paper and pulp.....	-2.0	-3.7	Shipbuilding.....	+9.2	+5.1
Paper boxes.....	-5.6	-7.6	All industries	-13.5	-18.2
Printing, book and job.....	-1.7	-0.5			
Printing, newspapers.....	+0.5	+0.4			
Chemicals and allied prod- ucts	-4.9	-4.4			
Chemicals.....	-8.1	-10.3			
Fertilizers.....	-1.3	-3.9			
Petroleum refining.....	-2.1	+1.4			

RECAPITULATION BY GEOGRAPHIC DIVISIONS

GEOGRAPHIC DIVISION ¹			GEOGRAPHIC DIVISION—contd.		
New England.....	-13.7	-20.9	West South Central.....	-10.5	-7.8
Middle Atlantic.....	-11.9	-16.2	Mountain.....	-12.3	-11.6
East North Central.....	-18.5	-24.1	Pacific.....	-14.6	-13.4
West North Central.....	-9.6	-11.9	All divisions	-13.5	-18.2
South Atlantic.....	-8.4	-11.3			
East South Central.....	-14.1	-16.0			

¹ See footnotes 4 to 12, p. 184.

Per Capita Earnings in Manufacturing Industries

PER CAPITA EARNINGS in manufacturing industries in June, 1930, were 1.5 per cent lower than in May, 1930, and 5.4 per cent less than in June, 1929. The per cents of change in per capita earnings in June, 1930, as compared with May, 1930, and June, 1929, for each industry, are shown in Table 4.

TABLE 4.—COMPARISON OF PER CAPITA EARNINGS IN MANUFACTURING INDUSTRIES, JUNE, 1930, WITH MAY, 1930, AND JUNE, 1929

Industry	Per cent of change June, 1930, com- pared with		Industry	Per cent of change June, 1930, com- pared with	
	May, 1930	June, 1929		May, 1930	June, 1929
Clothing, men's.....	+8.5	-14.3	Lumber, millwork.....	-0.5	-0.1
Fertilizers.....	+8.0	-2.7	Ice cream.....	-0.7	+0.2
Cement.....	+3.9	+1.8	Car building and repairing, steam-railroad.....	-1.0	-3.1
Confectionery.....	+3.8	-0.3	Silk goods.....	-1.1	-11.9
Stoves.....	+3.4	-5.8	Structural ironwork.....	-1.1	-2.7
Cigars and cigarettes.....	+3.0	-2.1	Steam fittings and steam and hot-water heating apparatus.....	-1.2	-9.8
Chewing and smoking tobacco and snuff.....	+2.6	-3.7	Paper and pulp.....	-1.3	-2.0
Flour.....	+2.4	+1.3	Machine tools.....	-1.6	-13.7
Stamped and enameled ware.....	+2.3	-6.5	Woolen and worsted goods.....	-1.6	-4.3
Hosiery and knit goods.....	+1.8	-10.5	Cotton goods.....	-2.2	-8.1
Shirts and collars.....	+1.8	-10.9	Foundry and machine-shop products.....	-2.2	-8.3
Brass, bronze, and copper prod- ucts.....	+1.7	-8.0	Furniture.....	-2.2	-12.5
Carriages and wagons.....	+1.1	+7.7	Iron and steel.....	-2.3	-7.1
Paper boxes.....	+1.1	-1.9	Rubber boots and shoes.....	-2.9	-10.2
Petroleum refining.....	+1.1	+3.4	Pottery.....	-3.0	-10.9
Car building and repairing, electric-railroad.....	+1.0	+0.8	Hardware.....	-3.6	-17.1
Sugar refining, cane.....	+0.7	-0.2	Pianos and organs.....	-3.8	-10.8
Brick, tile, and terra cotta.....	+0.6	-5.9	Cast-iron pipe.....	-3.9	-0.1
Baking.....	+0.1	+1.0	Shipbuilding.....	-4.6	-3.7
Leather.....	+0.1	-3.9	Clothing, women's.....	-4.9	-10.8
Printing, book and job.....	+0.1	+1.2	Automobiles.....	-5.7	-7.5
Glass.....	(¹)	-3.6	Carpets and rugs.....	-7.1	-23.6
Boots and shoes.....	-0.1	-16.1	Dyeing and finishing textiles.....	-7.1	-10.8
Printing, newspapers.....	-0.2	+0.3	Millinery and lace goods.....	-7.1	-12.8
Chemicals.....	-0.3	-2.4	Agricultural implements.....	-7.5	-14.3
Electrical machinery, appara- tus, and supplies.....	-0.4	+1.3	Automobile tires.....	-8.4	-2.9
Lumber, sawmills.....	-0.4	+0.9			
Slaughtering and meat packing.....	-0.4	+0.9	All industries.....	-1.5	-5.4

¹ No change.

Index Numbers of Employment and Pay-Roll Totals in Manufacturing Industries

TABLE 5 shows the general index of employment in manufacturing industries and the general index of pay-roll totals, by months, from January, 1923, to June, 1930, together with average indexes for each of the years 1923 to 1929, inclusive.

TABLE 5.—GENERAL INDEXES OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES, JANUARY, 1923, TO JUNE, 1930

[Monthly average, 1926=100]

Month	Employment								Pay-roll totals							
	1923	1924	1925	1926	1927	1928	1929	1930	1923	1924	1925	1926	1927	1928	1929	1930
January.....	106.6	103.8	97.9	100.4	97.3	91.6	95.2	90.2	95.8	98.6	93.9	98.0	94.9	89.6	94.5	87.6
February.....	108.4	105.1	99.7	101.5	99.0	93.0	97.4	90.3	99.4	103.8	99.3	102.2	100.6	93.9	101.8	90.7
March.....	110.8	104.9	100.4	102.0	99.5	93.7	98.6	89.8	104.7	103.3	100.8	103.4	102.0	95.2	103.9	90.8
April.....	110.8	102.8	100.2	101.0	98.6	93.3	99.1	89.1	105.7	101.1	98.3	101.5	100.8	93.8	104.6	89.8
May.....	110.8	98.8	98.9	99.8	97.6	93.0	99.2	87.7	109.4	96.5	98.5	99.8	99.8	94.1	104.8	87.6
June.....	110.9	95.6	98.0	99.3	97.0	93.1	98.8	85.5	109.3	90.8	95.7	99.7	97.4	94.2	102.8	84.1
July.....	109.2	92.3	97.2	97.7	95.0	92.2	98.2	-----	104.3	84.3	93.5	95.2	93.0	91.2	98.2	-----
August.....	108.5	92.5	97.8	98.7	95.1	93.6	98.6	-----	103.7	87.2	95.4	98.7	95.0	94.2	102.1	-----
September.....	108.6	94.3	98.9	100.3	95.8	95.0	99.3	-----	104.4	89.8	94.4	99.3	94.1	95.4	102.6	-----
October.....	108.1	95.6	100.4	100.7	95.3	95.9	98.3	-----	106.8	92.4	100.4	102.9	95.2	99.0	102.3	-----
November.....	107.4	95.5	100.7	99.5	93.5	95.4	94.8	-----	105.4	91.4	100.4	99.6	91.6	96.1	95.1	-----
December.....	105.4	97.3	100.8	98.9	92.6	95.5	91.9	-----	103.2	95.7	101.6	99.8	93.2	97.7	92.0	-----
Average.....	108.8	98.2	99.2	100.0	96.4	93.8	97.5	188.8	104.3	94.6	97.7	100.0	96.5	94.5	100.4	188.4

¹ Average for 6 months.

Index numbers showing relatively the variation in number of persons employed and in pay-roll totals in each of the 54 manufacturing industries surveyed by the Bureau of Labor Statistics and in each of the 12 groups of industries, and also general indexes for the combined 12 groups of industries, are shown in Table 6 for June, 1929, and for April, May, and June, 1930.

In computing the general indexes and the group indexes the index numbers of separate industries are weighted according to the importance of the industries.

Following Table 6 is a series of graphs, made from index numbers, showing clearly the course of employment for January, February, March, April, May, and June, 1930, and for each month of 1929. The first chart represents the 54 separate industries combined and shows the course of pay-roll totals as well as the course of employment for each month of the years 1926 to 1929, inclusive, and for January, February, March, April, May, and June, 1930, and following this presentation are charts showing the trend of employment alone through each month of 1929 and January, February, March, April, May, and June, 1930, in each separate industry.

TABLE 6.—INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES JUNE, 1929, AND APRIL, MAY, AND JUNE, 1930

[Monthly average, 1926=100]

Industry	Employment				Pay-roll totals			
	1929	1930			1929	1930		
	June	April	May	June	June	April	May	June
General index	98.8	89.1	87.7	85.5	102.8	89.8	87.6	84.1
Food and kindred products	98.9	93.7	94.3	95.3	102.7	97.1	98.0	99.6
Slaughtering and meat packing.....	100.1	95.2	95.8	98.6	103.2	98.8	99.9	102.4
Confectionery.....	83.0	83.3	80.4	79.2	86.8	85.1	80.8	82.6
Ice cream.....	106.3	86.2	97.6	99.2	107.3	87.2	99.3	100.2
Flour.....	97.0	95.9	95.0	95.5	101.0	100.7	98.2	100.9
Baking.....	103.8	97.3	97.8	98.9	105.9	100.0	100.4	101.6
Sugar refining, cane.....	97.5	94.8	97.4	93.5	103.6	94.0	102.8	99.4
Textiles and their products	97.3	88.7	85.9	83.7	97.3	83.2	78.2	75.1
Cotton goods.....	96.8	86.9	83.9	81.3	95.2	82.2	77.7	73.5
Hosiery and knit goods.....	97.7	91.0	89.9	88.9	104.6	90.8	84.6	85.1
Silk goods.....	97.9	95.3	89.3	86.2	102.9	92.8	83.7	79.9
Woolen and worsted goods.....	96.1	73.7	78.1	79.9	97.0	67.1	76.6	77.0
Carpets and rugs.....	106.1	95.0	86.7	78.8	99.8	77.6	67.1	56.6
Dyeing and finishing textiles.....	101.6	98.0	94.8	90.4	100.8	96.3	90.4	80.0
Clothing, men's.....	93.7	81.9	78.6	81.6	92.9	67.2	61.4	69.3
Shirts and collars.....	91.1	86.9	81.5	79.9	86.7	76.8	67.9	67.7
Clothing, women's.....	104.2	103.8	98.9	90.5	97.5	97.5	86.7	75.5
Millinery and lace goods.....	91.9	97.7	89.5	80.3	91.9	97.6	84.0	70.0
Iron and steel and their products	101.7	91.9	90.6	88.0	106.8	92.8	89.5	85.2
Iron and steel.....	97.2	90.8	90.7	87.7	104.0	94.3	92.0	87.0
Cast-iron pipe.....	78.6	72.1	72.5	72.8	78.3	74.5	75.2	72.6
Structural ironwork.....	102.3	94.7	95.4	96.0	104.7	96.3	96.3	95.9
Foundry and machine-shop products.....	108.6	96.4	94.0	91.3	113.5	96.8	92.1	87.5
Hardware.....	92.8	83.4	82.2	79.7	95.9	74.8	73.2	68.3
Machine tools.....	132.3	110.4	107.2	104.1	144.1	107.6	102.8	98.2
Steam fittings and steam and hot-water heating apparatus.....	76.6	68.8	67.7	62.7	76.4	65.0	61.7	56.4
Stoves.....	92.2	79.4	78.1	77.6	89.0	70.7	68.4	70.3
Lumber and its products	89.8	74.1	73.2	71.6	90.7	72.7	72.2	70.0
Lumber, sawmills.....	89.6	73.7	73.5	71.7	90.6	75.4	75.2	73.1
Lumber, millwork.....	87.4	68.0	68.3	66.5	87.9	67.3	69.2	67.0
Furniture.....	92.0	78.7	75.6	74.4	92.9	70.8	68.2	65.6
Leather and its products	88.5	88.9	85.8	82.6	84.8	78.9	73.1	71.4
Leather.....	90.0	88.3	86.8	85.0	92.2	86.2	85.5	83.9
Boots and shoes.....	88.1	89.1	85.6	83.3	85.2	76.8	69.6	67.8

TABLE 6.—INDEX NUMBERS OF EMPLOYMENT AND PAY-ROLL TOTALS IN MANUFACTURING INDUSTRIES JUNE, 1929, AND APRIL, MAY, AND JUNE, 1930—Continued

Industry	Employment				Pay-roll totals			
	1929	1930			1929	1930		
	June	April	May	June	June	April	May	June
Paper and printing	100.2	99.7	99.6	98.6	105.2	105.1	104.9	103.6
Paper and pulp.....	95.7	94.9	94.6	93.8	97.7	97.5	96.1	94.1
Paper boxes.....	93.2	89.3	87.8	88.0	99.7	93.2	90.9	92.1
Printing, book and job.....	100.9	100.5	100.8	99.2	104.8	104.2	105.6	104.3
Printing, newspapers.....	107.7	109.0	109.1	108.2	112.6	114.6	114.3	113.0
Chemicals and allied products	94.4	101.7	93.0	89.8	99.9	102.0	97.0	95.5
Chemicals.....	101.3	94.4	94.0	93.1	105.8	96.5	96.0	94.9
Fertilizers.....	63.6	145.7	84.9	62.8	73.6	139.9	88.6	70.7
Petroleum refining.....	96.4	96.1	94.5	94.4	98.9	100.7	99.3	100.3
Stone, clay, and glass products	90.7	78.6	79.1	77.9	90.8	75.7	75.5	74.7
Cement.....	85.5	77.3	81.4	83.4	87.6	77.7	81.9	87.1
Brick, tile, and terra cotta.....	87.6	67.0	69.5	69.4	86.2	61.8	63.9	64.1
Pottery.....	93.8	90.6	86.4	83.1	90.5	84.6	76.6	71.4
Glass.....	96.4	90.3	88.2	84.6	99.5	89.8	87.8	84.1
Metal products, other than iron and steel	98.9	83.8	82.1	80.8	104.6	82.6	78.5	78.7
Stamped and enameled ware.....	91.1	83.6	81.5	79.4	93.4	81.7	76.2	76.0
Brass, bronze, and copper products.....	102.6	83.9	82.4	81.4	109.1	82.9	79.4	79.7
Tobacco products	93.5	90.1	91.4	91.2	93.6	81.7	86.9	89.3
Chewing and smoking tobacco and snuff.....	87.1	88.8	87.4	87.9	91.4	87.2	86.0	88.5
Cigars and cigarettes.....	94.3	90.3	91.9	91.6	93.9	81.0	87.0	89.4
Vehicles for land transportation	103.1	86.8	87.0	82.7	109.8	91.5	90.7	83.1
Automobiles.....	123.4	96.1	97.5	90.9	127.4	98.1	98.9	86.8
Carriages and wagons.....	79.4	64.5	63.0	59.5	83.1	71.6	70.1	67.0
Car building and repairing, electric-railroad.....	90.6	89.4	88.5	87.6	93.8	92.6	91.3	91.3
Car building and repairing, steam-railroad.....	85.9	78.5	77.7	75.2	93.0	84.8	82.3	78.8
Miscellaneous industries	115.3	101.8	95.6	95.9	118.5	105.4	102.8	97.2
Agricultural implements.....	126.9	114.7	107.0	91.5	131.3	117.5	102.8	81.3
Electrical machinery, apparatus, and supplies.....	123.1	109.2	105.1	102.3	127.7	114.2	110.9	107.4
Pianos and organs.....	64.6	49.2	47.5	45.5	61.8	42.9	42.1	38.8
Rubber boots and shoes.....	93.2	86.0	78.1	74.5	97.8	83.3	75.9	70.3
Automobile tires.....	113.9	83.1	85.3	86.1	113.1	87.0	89.8	83.1
Shipbuilding.....	107.4	121.7	118.0	117.3	113.2	125.9	125.4	119.0

Force Employed and Time Worked in Manufacturing Industries in June, 1930

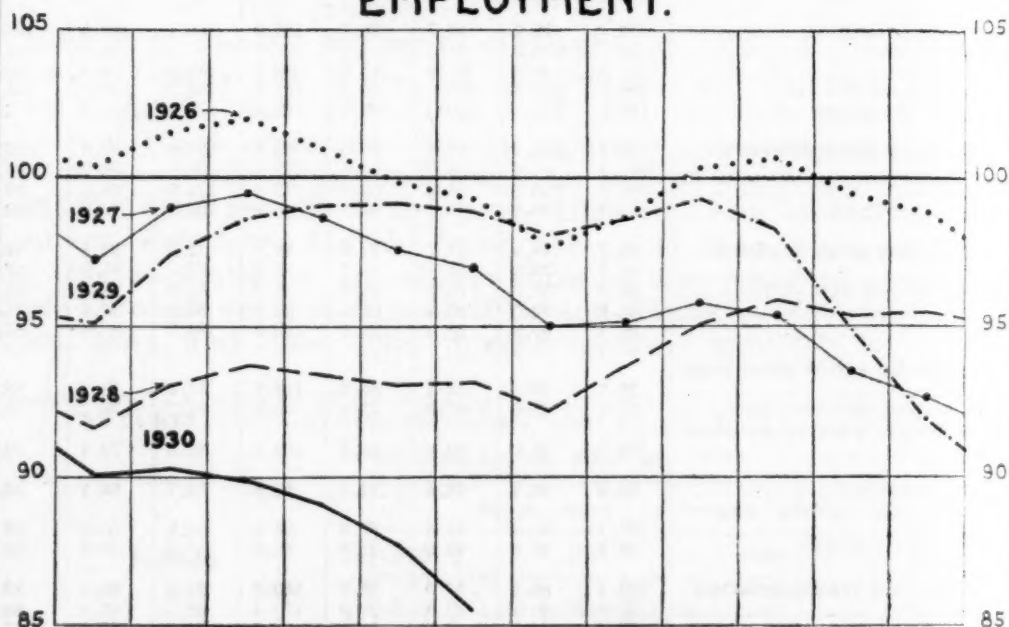
TEN THOUSAND EIGHT HUNDRED AND TWENTY-TWO establishments in 54 manufacturing industries reported in June as to force employed and working time of employees. Twenty-eight per cent of the establishments had a full normal force of employees, 71 per cent were working with reduced forces, and 1 per cent were idle; employees in 64 per cent of the establishments were working full time and employees in 34 per cent were working part time.

The establishments in operation had an average of 84 per cent of a full normal force of employees who were working an average of 93 per cent of full time; these percentages indicate a decrease of 1 per cent in average force and average working time from May to June.

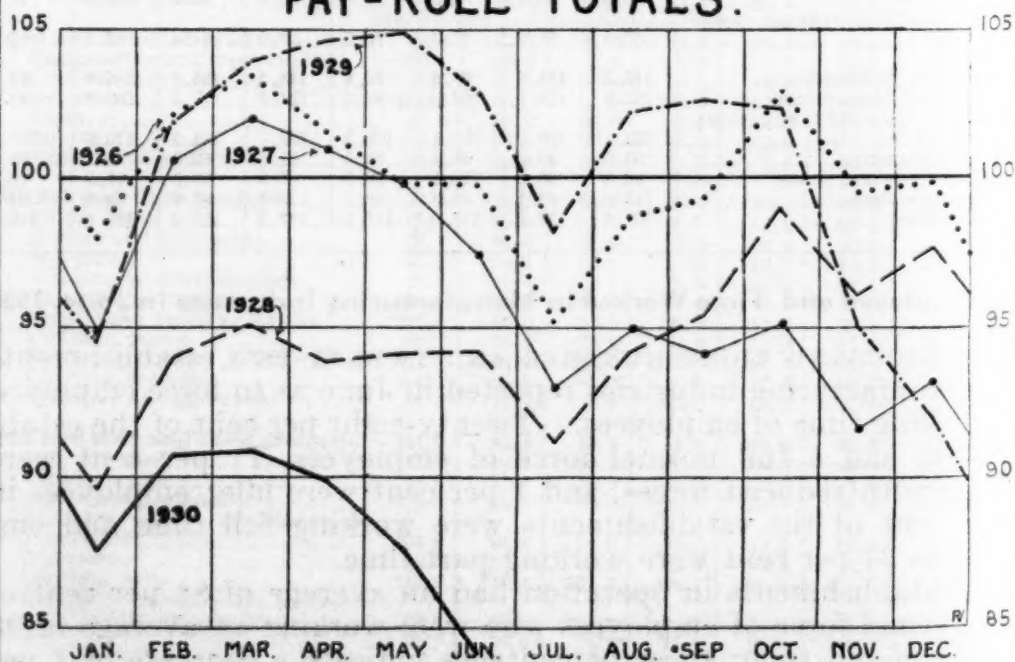
MANUFACTURING INDUSTRIES. MONTHLY INDEXES, 1926-1930.

MONTHLY AVERAGE 1926 = 100.

EMPLOYMENT.



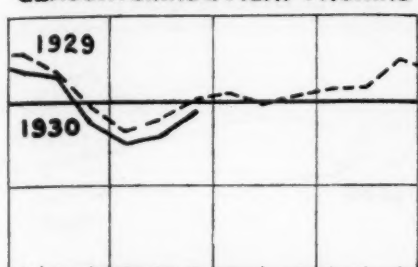
PAY-ROLL TOTALS.



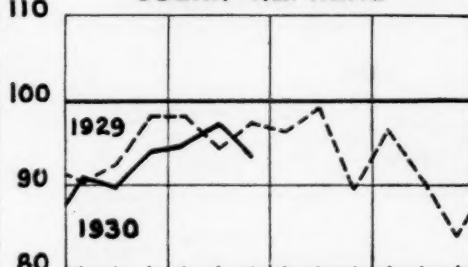
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926 = 100.

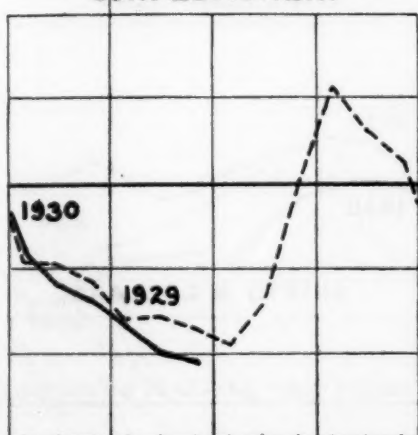
SLAUGHTERING & MEAT PACKING



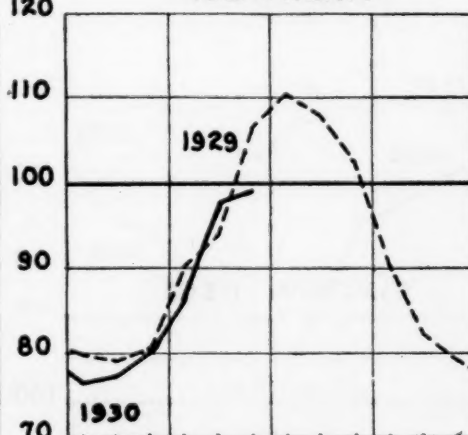
SUGAR REFINING



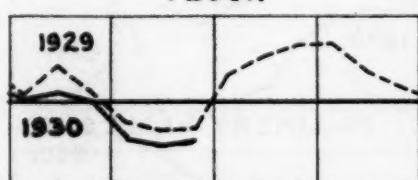
CONFECTIONERY



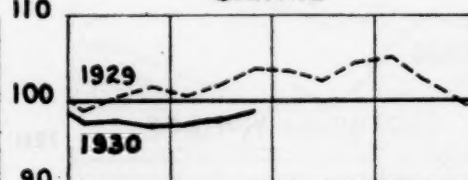
ICE CREAM



FLOUR



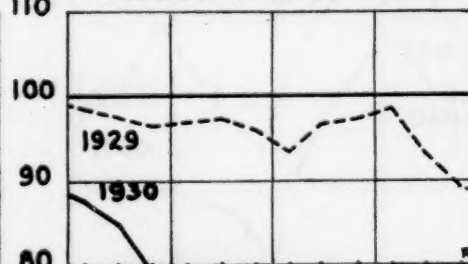
BAKING



COTTON GOODS



WOOLEN & WORSTED GOODS

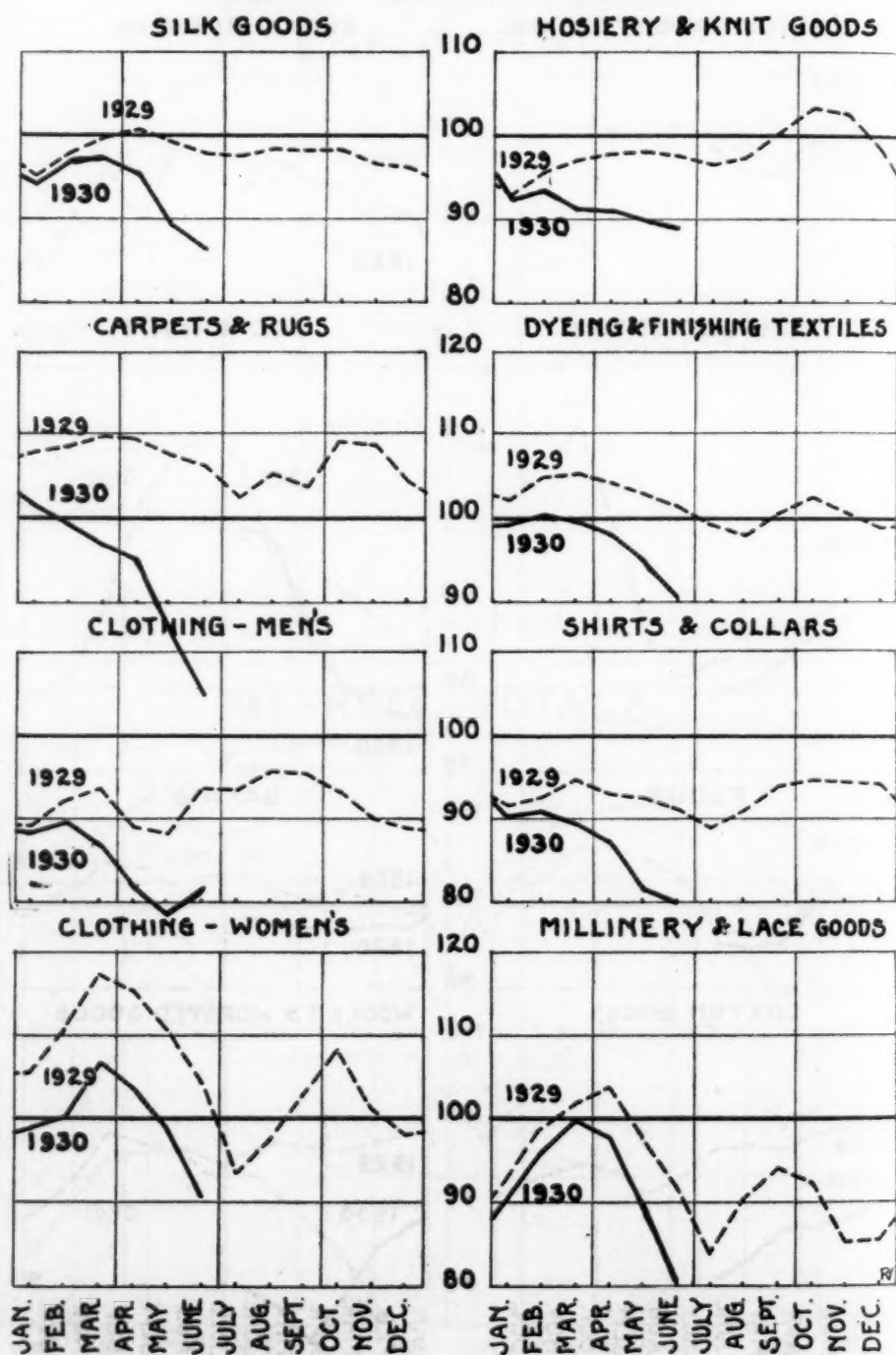


JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

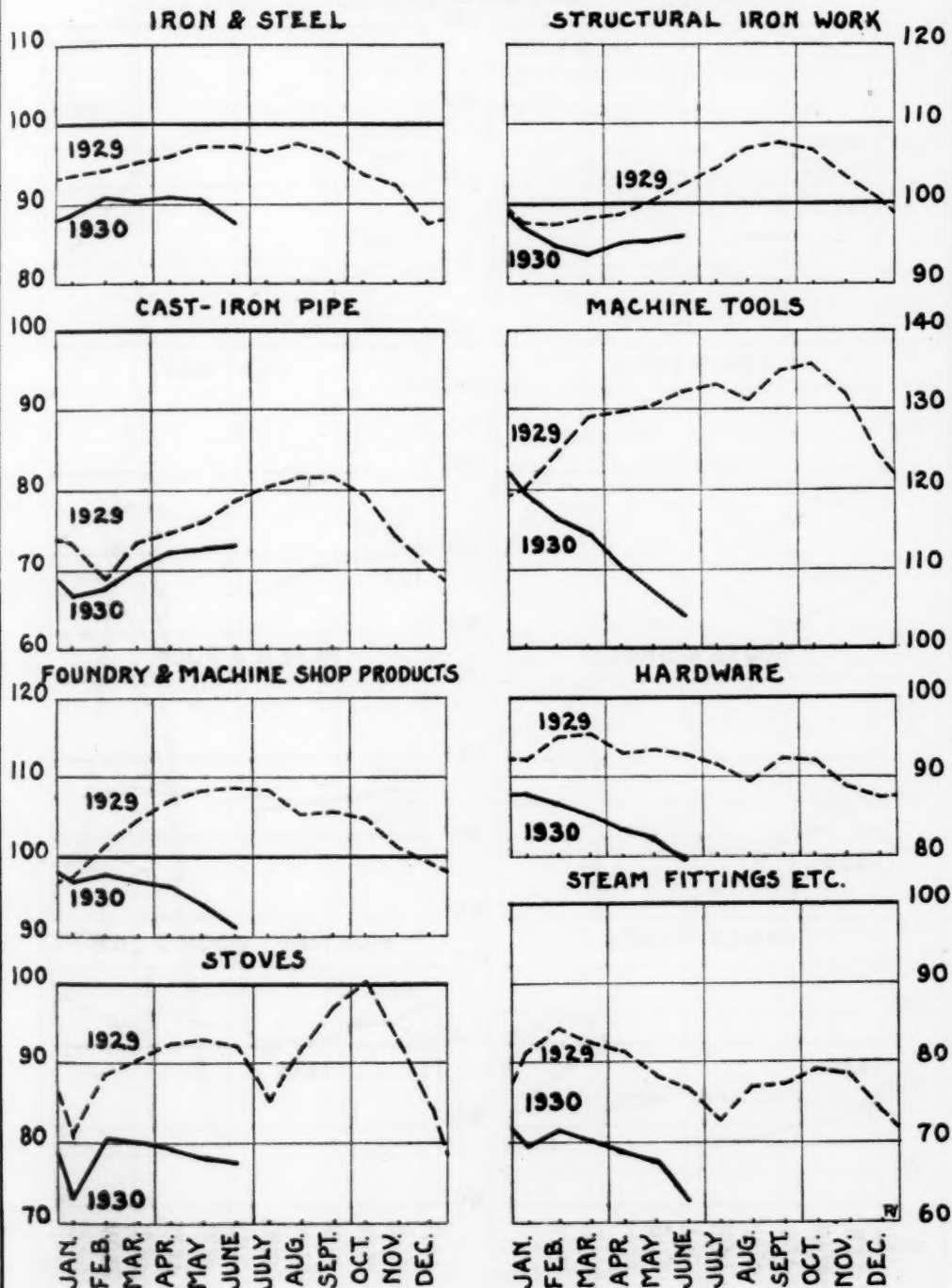
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926=100.



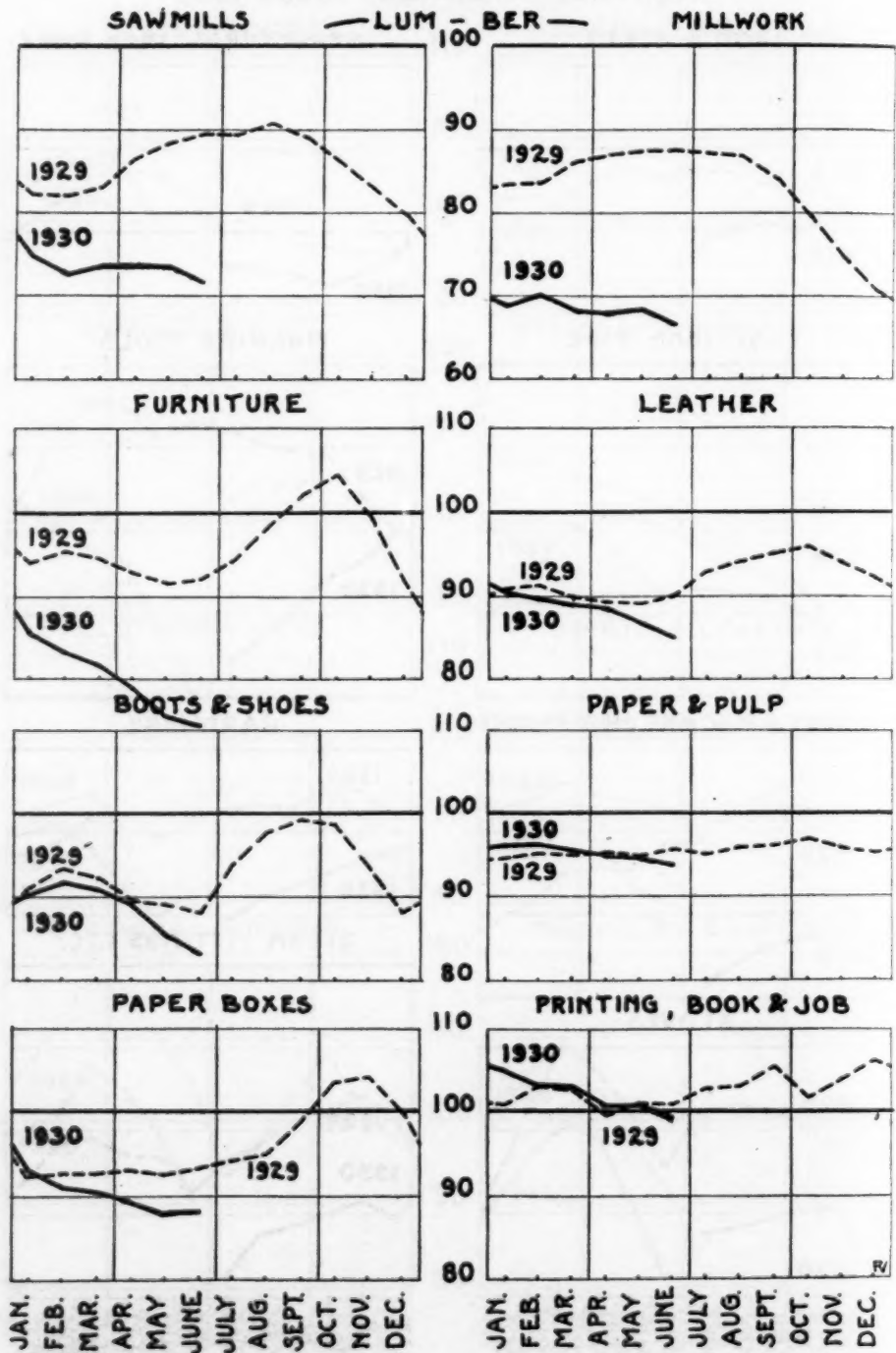
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926 = 100.



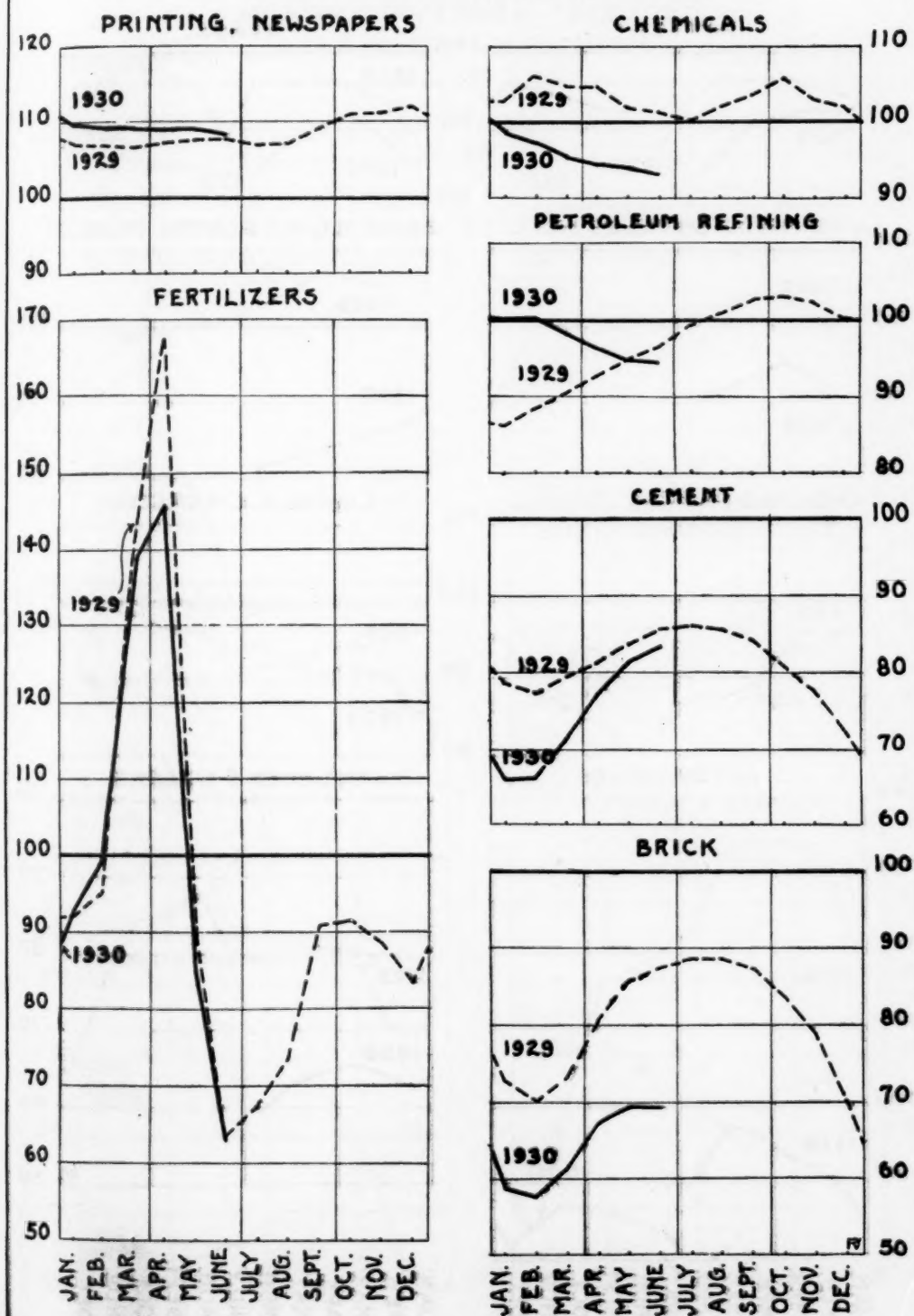
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926 = 100.



TREND OF EMPLOYMENT.

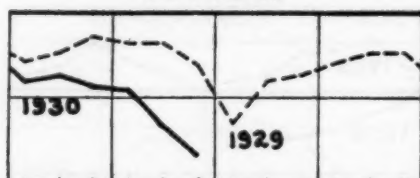
MONTHLY AVERAGE 1926 = 100.



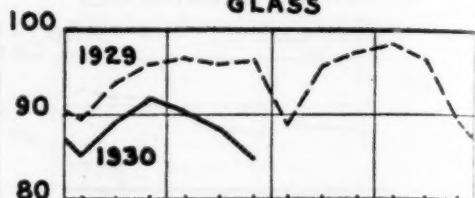
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926 = 100.

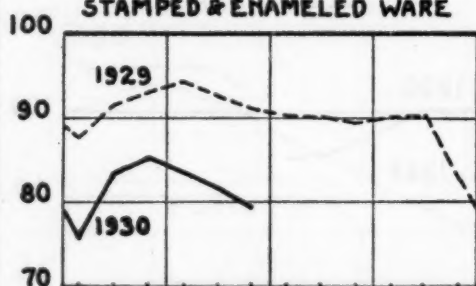
POTTERY



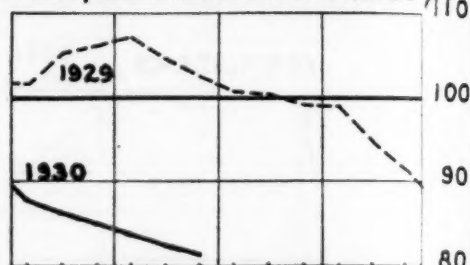
GLASS



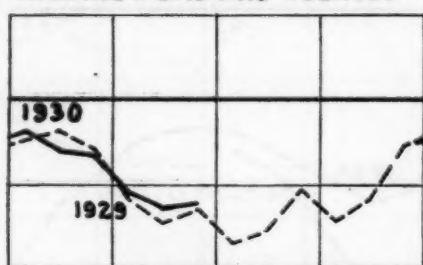
STAMPED & ENAMELED WARE



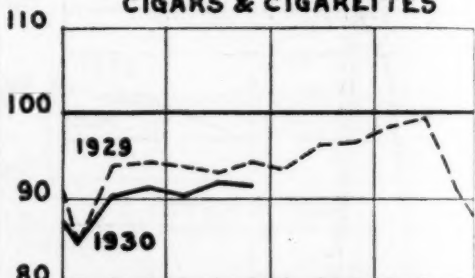
BRASS, BRONZE & COPPER PRODUCTS



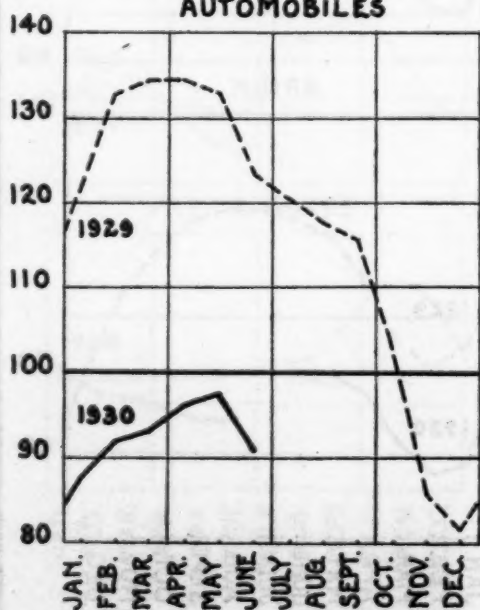
CHEWING & SMOKING TOBACCO



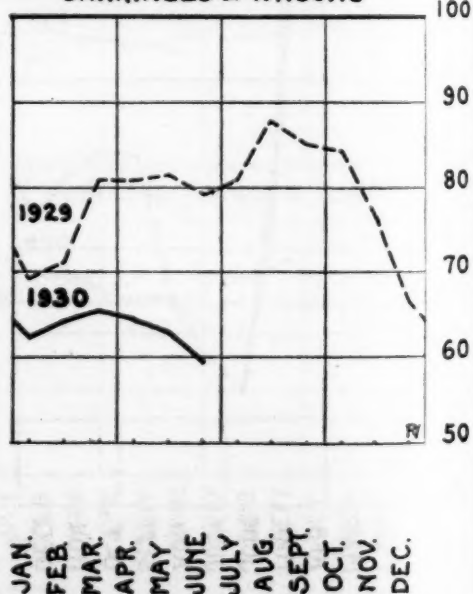
CIGARS & CIGARETTES



AUTOMOBILES



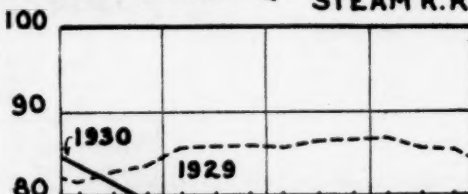
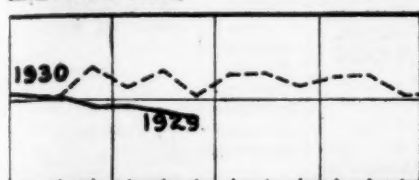
CARRIAGES & WAGONS



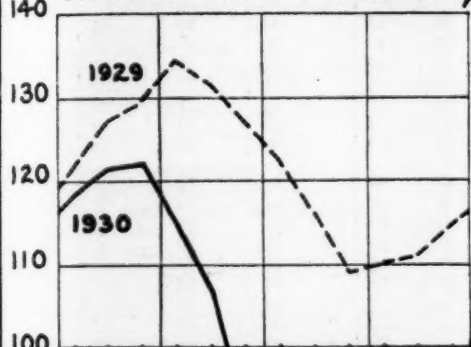
TREND OF EMPLOYMENT.

MONTHLY AVERAGE 1926 = 100.

ELECTRIC R.R. — CAR BUILDING & REPAIRING — STEAM R.R.



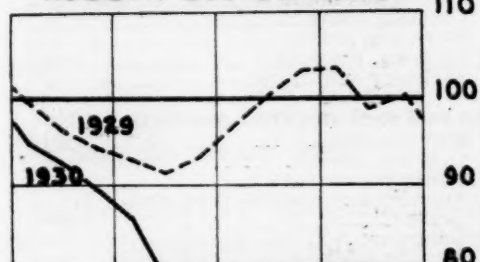
AGRICULTURAL IMPLEMENTS



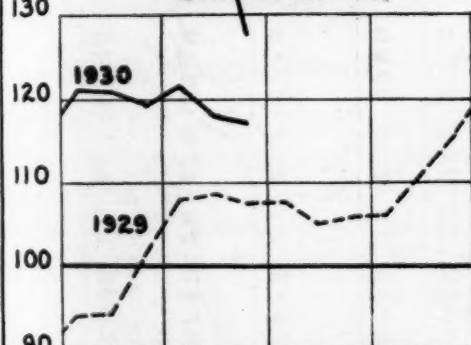
ELECTRICAL MACHINERY ETC.



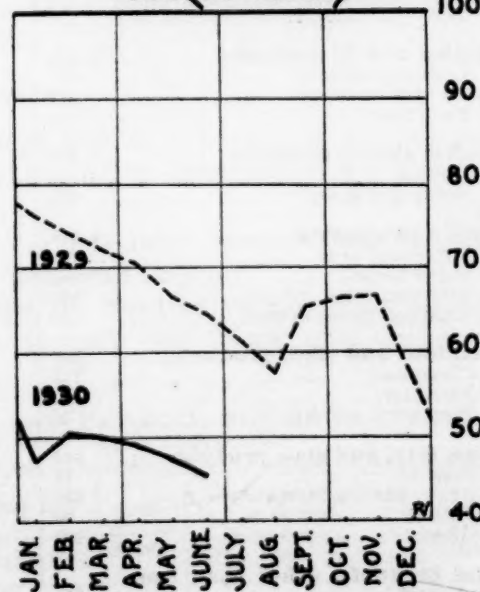
RUBBER BOOTS & SHOES



SHIPBUILDING



PIANOS & ORGANS



AUTOMOBILE TIRES

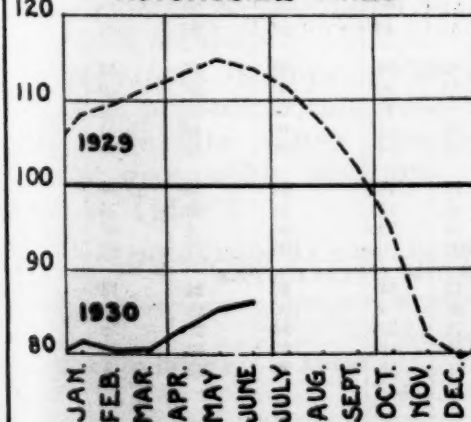


TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JUNE, 1930, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Food and kindred products	1,663	(¹)	85	15	97	39	61	88
Slaughtering and meat packing.....	173		83	17	99	45	55	91
Confectionery.....	251	1	54	45	90	8	92	66
Ice cream.....	245		89	11	99	35	65	87
Flour.....	301	(¹)	83	17	97	37	62	90
Baking.....	680		97	3	99	51	49	96
Sugar refining, cane.....	13		85	15	98	38	62	93
Textiles and their products	1,784	4	57	40	90	25	71	80
Cotton goods.....	437	3	44	52	85	19	77	79
Hosiery and knit goods.....	301	1	64	35	91	25	74	84
Silk goods.....	259	4	67	29	93	29	67	82
Woolen and worsted goods.....	168	3	53	44	89	14	83	76
Carpets and rugs.....	23		30	70	77	13	87	79
Dyeing and finishing.....	91		43	57	86	19	81	83
Clothing, men's.....	210	5	60	35	93	34	61	80
Shirts and collars.....	71	7	54	39	91	41	52	90
Clothing, women's.....	162	10	72	17	99	35	55	86
Millinery and lace goods.....	62		63	37	94	18	82	78
Iron and steel and their products	1,775	1	47	52	88	22	77	86
Iron and steel.....	160	6	54	39	89	18	76	90
Cast-iron pipe.....	38	3	37	61	76	11	87	73
Structural ironwork.....	159		71	29	95	28	72	91
Foundry and machine-shop products.....	1,008	(¹)	48	51	89	19	80	83
Hardware.....	57		25	75	83	11	89	74
Machine tools.....	144		36	64	87	40	60	97
Steam fittings and steam and hot-water heating apparatus.....	102	2	36	62	84	26	72	77
Stoves.....	107	2	35	64	83	24	74	86
Lumber and its products	1,152	2	54	44	90	17	81	75
Lumber, sawmills.....	537	2	66	31	93	20	78	76
Lumber, millwork.....	272	1	52	47	90	12	86	74
Furniture.....	343	2	35	63	85	17	81	72
Leather and its products	386	2	61	37	92	27	71	87
Leather.....	120	1	79	20	97	29	70	81
Boots and shoes.....	266	3	52	45	90	26	71	89
Paper and printing	1,018	1	83	17	98	46	53	97
Paper and pulp.....	159	4	74	22	95	35	60	95
Paper boxes.....	160	1	51	48	91	25	74	87
Printing, book and job.....	344		88	12	99	46	54	97
Printing, newspapers.....	355		96	4	100	62	38	102
Chemicals and allied products	288	1	79	19	97	13	85	79
Chemicals.....	113	2	80	19	96	24	74	89
Fertilizers.....	139	1	73	25	96	4	95	39
Petroleum refining.....	36		100		100	17	83	91
Stone, clay, and glass products	815	3	73	24	95	24	73	81
Cement.....	78		96	4	100	18	82	78
Brick, tile, and terra cotta.....	538	3	71	25	94	21	76	71
Pottery.....	90	1	53	46	89	33	66	90
Glass.....	109	5	84	11	98	35	61	91
Metal products, other than iron and steel	208	(¹)	59	41	92	22	77	80
Stamped and enameled ware.....	65	2	65	34	93	25	74	86
Brass, bronze, and copper products.....	143		56	44	91	21	79	77

¹ Less than one-half of 1 per cent.

TABLE 7.—PROPORTION OF FULL NORMAL FORCE EMPLOYED IN MANUFACTURING INDUSTRIES IN JUNE, 1930, AND PROPORTION OF FULL TIME WORKED BY EMPLOYEES—Continued

Industry	Establishments reporting		Operating establishments only					
			Per cent of establishments in which employees worked		Average per cent of full time worked by employees in establishments operating	Per cent of establishments operating with		Average per cent of full normal force employed in establishments operating
	Total number	Per cent idle	Full time	Part time		Full normal force	Part normal force	
Tobacco products	198	2	59	39	93	35	63	96
Chewing and smoking tobacco and snuff.....	24		58	42	93	38	62	95
Cigars and cigarettes.....	174	2	59	39	93	35	63	99
Vehicles for land transportation	1,129	(1)	62	38	94	23	77	81
Automobiles.....	186		52	48	90	32	68	81
Carriages and wagons.....	45	2	60	38	93	11	87	64
Car building and repairing, electric-railroad.....	378		88	12	99	40	60	93
Car building and repairing, steam-railroad.....	520		46	54	91	9	91	78
Miscellaneous industries	406	1	60	39	88	31	68	86
Agricultural implements.....	76		50	50	90	29	71	81
Electrical machinery, apparatus, and supplies.....	167	1	60	39	92	33	66	85
Pianos and organs.....	53	2	42	57	86	6	92	65
Rubber boots and shoes.....	7	14	71	14	99	14	71	75
Automobile tires.....	35		60	40	95	31	69	85
Shipbuilding.....	68	1	85	13	99	50	49	98
All industries	10,822	1	64	34	93	28	71	84

¹ Less than one-half of 1 per cent.

2. Employment in Coal Mining in June, 1930

EMPLOYMENT in coal mining—anthracite and bituminous coal combined—showed a decrease of 2.5 per cent in June as compared with May, and pay-roll totals decreased 3.4 per cent.

The 1,437 mines reported had in June 291,399 employees whose earnings in one week were \$7,358,088.

Anthracite

IN ANTHRACITE mining in June there was a decrease of 3.2 per cent in employment as compared with May, and a decrease of 4.6 per cent in pay-roll totals.

Employment in June, 1930, was 2.3 per cent lower than in June, 1929, and pay-roll totals were 16.9 per cent higher.^a

All anthracite mines reported are in Pennsylvania—the Middle Atlantic geographic division. The details for May and June are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL ANTHRACITE MINES IN MAY AND JUNE, 1930

Geographic division	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Middle Atlantic ¹	153	96,761	93,674	-3.2	\$3,175,815	\$3,030,505	-4.6

¹ See footnote 5, p. 184.^a For indexes of employment and pay-roll totals, see p. 211.

Bituminous Coal

EMPLOYMENT in bituminous coal mining decreased 2.2 per cent in June as compared with May and pay-roll totals decreased 2.5 per cent, as shown by reports from 1,284 mines, in which there were, in June, 197,725 employees whose combined earnings in one week were \$4,327,583.

Employment in June, 1930, was 6.7 per cent lower than in June, 1929, and pay-roll totals were 16.0 per cent smaller.^a

Details for each geographic division, except the New England division, for which no coal mining is reported, are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL BITUMINOUS COAL MINES IN MAY AND JUNE, 1930

Geographic division ¹	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Middle Atlantic.....	392	63,311	60,726	-4.1	\$1,437,287	\$1,369,645	-4.7
East North Central.....	153	23,457	22,548	-3.9	498,868	471,008	-5.6
West North Central.....	59	5,124	4,628	-9.7	91,389	85,988	-5.9
South Atlantic.....	320	53,776	52,785	-1.8	1,190,754	1,195,089	+0.4
East South Central.....	211	40,932	41,296	+0.9	833,557	803,603	-3.6
West South Central.....	30	2,067	2,187	+5.8	37,852	39,552	+4.5
Mountain.....	109	11,952	12,114	+1.4	308,858	322,186	+4.3
Pacific.....	10	1,485	1,441	-3.0	41,699	40,512	-2.8
All divisions.....	1,284	292,104	197,725	-2.2	4,440,264	4,327,583	-2.5

¹ See footnotes 5 to 12, p. 184.

3. Employment in Metalliferous Mining in June, 1930

METALLIFEROUS mines in June showed a decrease in employment of 3.3 per cent as compared with May, and pay-roll totals decreased 4.7 per cent. The 345 mines covered had in June 52,760 employees whose combined earnings in one week were \$1,526,045.

Employment in June, 1930, was 18.5 per cent lower than in June, 1929, and pay-roll totals were 22.7 per cent lower.^a

Details for each geographic division from which metalliferous mining is reported are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL METALLIFEROUS MINES IN MAY AND JUNE, 1930

Geographic division ¹	Mines	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Middle Atlantic.....	6	1,282	1,318	+2.8	\$36,093	\$37,820	+4.8
East North Central.....	41	11,036	10,975	-0.6	286,425	278,188	-2.9
West North Central.....	54	7,438	7,409	-0.4	235,630	229,993	-2.4
East South Central.....	14	3,499	3,441	-1.7	77,295	77,106	-0.2
West South Central.....	71	3,411	3,022	-11.4	85,327	77,117	-9.6
Mountain.....	128	24,932	23,692	-5.0	790,733	738,131	-6.7
Pacific.....	31	2,961	2,903	-2.0	89,643	87,690	-2.2
All divisions.....	345	54,559	52,760	-3.3	1,691,146	1,526,045	-4.7

¹ See footnotes 5 to 12, p. 184.

^a For indexes of employment and pay-roll totals, see p. 211.

4. Employment in Quarrying and Nonmetallic Mining in June, 1930

A DECREASE of 0.5 per cent in employment coupled with an increase of 0.8 per cent in earnings from May to June was shown by reports received from 731 establishments in this industrial group. The reporting establishments had 38,036 employees whose combined pay roll in one week in June was \$1,013,002.

Employment in June, 1930, was 15.3 per cent lower than in June, 1929, and pay-roll totals were 17.7 per cent less.^a

Details for each geographic division are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL QUARRIES AND NONMETALLIC MINES IN MAY AND JUNE, 1930

Geographic division ¹	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	108	5,106	5,184	+1.5	\$152,660	\$154,723	+1.4
Middle Atlantic.....	108	7,110	7,238	+1.8	201,951	203,987	+1.0
East North Central.....	217	10,060	9,869	-1.9	312,247	316,358	+1.3
West North Central.....	75	2,429	2,385	-1.8	60,996	60,970	-(2)
South Atlantic.....	90	5,995	6,038	+0.7	117,009	117,183	+0.1
East South Central.....	58	3,287	3,407	+3.7	55,750	57,398	+3.0
West South Central.....	39	2,891	2,639	-8.7	67,192	63,747	-5.1
Mountain.....	4	96	80	-16.7	2,629	1,938	-26.3
Pacific.....	32	1,251	1,196	-4.4	34,527	36,698	+6.3
All divisions.....	731	38,225	38,036	-0.5	1,004,961	1,013,002	+0.8

¹ See footnotes 4 to 12, p. 184.

² Less than one-tenth of 1 per cent.

5. Employment in Crude Petroleum Production in June, 1930

REPORTS received from 449 crude petroleum producing establishments having 25,218 employees whose earnings in one week in June were \$866,359 show increases of 0.5 per cent and of 2.0 per cent in employment and pay-roll totals, respectively.

As data for this industry were not collected for the months prior to January, 1930, no comparison over the year interval is available at this time.

Details for each geographic division except New England are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CRUDE PETROLEUM PRODUCTION COMPANIES IN MAY AND JUNE, 1930

Geographic division ¹	Establishments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
Middle Atlantic.....	37	991	973	-1.8	\$27,609	\$26,912	-2.5
East North Central.....	6	49	47	-4.1	1,748	1,616	-7.6
West North Central.....	4	91	97	+6.6	3,149	2,841	-9.8
South Atlantic.....	10	585	606	+3.6	17,104	18,113	+5.9
East South Central.....	4	274	273	-0.4	6,932	6,710	-3.2
West South Central.....	328	20,959	21,173	+1.0	706,859	732,049	+3.6
Mountain.....	15	228	215	-5.7	7,745	7,731	-0.2
Pacific.....	45	1,911	1,834	-4.0	77,825	70,387	-9.6
All divisions.....	449	25,088	25,218	+0.5	848,971	866,359	+2.0

¹ See footnotes 5 to 12, p. 184.

^a For indexes of employment and pay-roll totals, see p. 211.

6. Employment in Public Utilities in June, 1930

EMPLOYMENT in 10,941 establishments—telephone and telegraph companies, power, light, and water companies, and electric railroads combined—increased 0.3 per cent in June as compared with May, and pay-roll totals increased 1.4 per cent. These establishments had in June 769,375 employees whose combined earnings in one week were \$23,357,480.

Employment in public utilities was 1.1 per cent lower in June, 1930, than in June, 1929, while pay-roll totals were 2.3 per cent greater.

Data for the three groups into which public utilities have been separated follow.

Telephone and Telegraph

EMPLOYMENT in telephone and telegraph companies was 0.1 per cent higher in June than in May, and earnings increased 0.2 per cent. The 7,451 establishments reporting had in June, 351,215 employees whose combined earnings in one week were \$9,912,691.

Employment in June, 1930, was 1.7 per cent below the level of June, 1929, but pay-roll totals were 3.4 per cent higher in June, 1930, than in June, 1929.^a

Details for each geographic division are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL TELEPHONE AND TELEGRAPH ESTABLISHMENTS IN MAY AND JUNE, 1930

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	574	29,712	30,103	+1.3	\$881,187	\$898,240	+1.9
Middle Atlantic.....	1,221	112,797	113,070	+0.2	3,517,337	3,535,521	+0.5
East North Central.....	1,177	79,310	79,553	+0.3	2,181,921	2,187,401	+0.3
West North Central.....	1,294	32,755	33,107	+1.1	792,451	803,694	+1.4
South Atlantic.....	556	23,362	22,947	-1.8	610,995	606,018	-0.8
East South Central.....	563	11,769	11,672	-0.8	256,377	254,634	-0.7
West South Central.....	690	20,174	20,198	+0.1	447,751	444,910	-0.6
Mountain.....	480	8,174	8,262	+1.1	197,376	196,615	-0.4
Pacific.....	896	32,835	32,303	-1.6	1,008,808	985,658	-2.3
All divisions.....	7,451	350,888	351,215	+0.1	9,894,203	9,912,691	+0.2

¹ See footnotes 4 to 12, p. 184.

Power, Light, and Water

EMPLOYMENT in power, light, and water plants was 1.2 per cent greater in June than in May, and pay-roll totals were 3.2 per cent higher. The 3,015 establishments reporting had in June 260,692 employees whose combined earnings in one week were \$8,375,866.

Employment in June, 1930, was 3.9 per cent higher than in June, 1929, and pay-roll totals were 7.4 per cent greater.^a

Details for each geographic division are shown in Table 2.

^a For indexes of employment and pay-roll totals, see p. 211.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL POWER, LIGHT, AND WATER COMPANIES IN MAY AND JUNE, 1930

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	235	21,724	21,937	+1.0	\$702,502	\$712,783	+1.5
Middle Atlantic.....	343	65,979	66,855	+1.3	2,129,357	2,203,116	+3.5
East North Central.....	573	58,726	59,067	+0.6	1,976,592	2,052,797	+3.9
West North Central.....	414	29,004	29,091	+0.3	843,481	878,351	+4.1
South Atlantic.....	262	23,373	23,584	+0.9	704,888	727,748	+3.2
East South Central.....	176	8,076	8,514	+5.4	194,378	195,395	+0.5
West South Central.....	554	18,377	18,860	+2.6	509,973	534,212	+4.8
Mountain.....	128	6,215	6,287	+1.2	192,700	198,423	+3.0
Pacific.....	330	26,250	26,497	+0.9	861,710	873,041	+1.3
All divisions.....	3,015	257,724	260,692	+1.2	8,115,581	8,375,866	+3.2

¹ See footnotes 4 to 12, p. 184.

Electric Railroads

EMPLOYMENT in the operation and maintenance of electric railroads, exclusive of car shops, decreased 0.4 per cent from May to June, while pay-roll totals increased 1 per cent. The 475 establishments reporting had in June 157,468 employees whose combined earnings in one week were \$5,068,923.

A comparison of employment and earnings in this group over the year period shows a drop of 6.3 and 4.6 per cent, respectively, in the two items.^a

Details for each geographic division are shown in Table 3.

TABLE 3.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN THE OPERATION AND MAINTENANCE OF IDENTICAL ELECTRIC RAILROADS IN MAY AND JUNE, 1930

Geographic division ¹	Estab- lish- ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	49	14,656	14,684	+0.2	\$528,869	\$529,053	+(²)
Middle Atlantic.....	111	41,580	41,415	-0.4	1,300,049	1,300,104	+(²)
East North Central.....	100	48,381	47,772	-1.3	1,606,938	1,608,689	+0.1
West North Central.....	64	14,977	14,955	-0.1	460,237	481,182	+4.6
South Atlantic.....	52	8,700	8,856	+1.8	240,705	249,265	+3.6
East South Central.....	11	4,057	4,169	+2.8	110,373	107,632	-2.5
West South Central.....	38	6,021	6,025	+0.1	158,473	167,084	+5.4
Mountain.....	14	2,393	2,445	+2.2	65,520	68,112	+4.0
Pacific.....	36	17,389	17,147	-1.4	548,096	557,802	+1.8
All divisions.....	475	158,154	157,468	-0.4	5,019,260	5,068,923	+1.0

¹ See footnotes 4 to 12, p. 184.² Less than one-tenth of 1 per cent.

7. Employment in Wholesale and Retail Trade in June, 1930

EMPLOYMENT in 9,289 establishments—wholesale and retail trade combined—showed a decrease of 2.3 per cent in June as compared with May, while pay-roll totals remained practically unchanged. These establishments had in June 310,021 employees whose combined earnings in one week were \$8,067,815.

^a For indexes of employment and pay-roll totals, see p. 211.

Wholesale Trade

EMPLOYMENT in wholesale trade alone decreased 0.3 per cent in June as compared with May, while pay-roll totals showed a gain of 1.2 per cent over the month interval. The 2,072 establishments reporting had in June 65,585 employees and pay-roll totals of \$2,104,811.

Employment in June, 1930, was 2.7 per cent lower than in June, 1929, and pay-roll totals showed no change over the 12-month period.^a

Details for each geographic division are shown in Table 1.

TABLE 1.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL WHOLESALE TRADE ESTABLISHMENTS IN MAY AND JUNE, 1930

Geographic division ¹	Estab- lish- ments	Number on pay roll		Percent of change	Amount of pay roll (1 week)		Percent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	161	3,808	3,855	+1.2	\$108,945	\$108,742	-0.2
Middle Atlantic.....	355	9,804	9,780	-0.2	315,621	314,575	-0.3
East North Central.....	291	13,633	13,560	-0.5	439,114	445,389	+1.4
West North Central.....	259	14,099	14,008	-0.6	430,939	437,172	+1.4
South Atlantic.....	284	4,092	4,072	-0.5	123,671	123,904	+0.2
East South Central.....	64	1,881	1,862	-1.0	55,448	55,158	-0.5
West South Central.....	254	5,827	5,873	+0.8	179,506	182,382	+1.6
Mountain.....	77	1,805	1,791	-0.8	61,706	63,752	+3.3
Pacific.....	327	10,806	10,784	-0.2	364,025	373,737	+2.7
All divisions.....	2,072	65,755	65,585	-0.3	2,078,975	2,104,811	+1.2

¹ See footnotes 4 to 12, p. 184.

Retail Trade

EMPLOYMENT in retail trade decreased 2.9 per cent in June and pay-roll totals decreased 0.5 per cent.

The 7,217 establishments from which reports were received had in June 244,436 employees whose earnings in one week were \$5,963,004.

Employment in June, 1930, was 3.6 per cent lower than in June, 1929, and pay-roll totals decreased 1.8 per cent.^a

Details by geographic divisions are shown in Table 2.

TABLE 2.—COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL RETAIL TRADE ESTABLISHMENTS IN MAY AND JUNE, 1930

Geographic division ¹	Estab- lish- ments	Number on pay roll		Percent of change	Amount of pay roll (1 week)		Percent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	90	13,322	13,300	-0.2	\$315,646	\$322,006	+2.0
Middle Atlantic.....	311	49,334	48,469	-1.8	1,277,139	1,270,379	-0.5
East North Central.....	2,461	83,094	79,438	-4.4	2,076,210	2,031,950	-2.1
West North Central.....	680	21,904	20,928	-4.5	465,223	463,168	-0.4
South Atlantic.....	979	20,509	20,380	-0.6	454,799	452,443	-0.5
East South Central.....	388	8,129	7,414	-8.8	155,464	153,662	-1.2
West South Central.....	319	10,785	10,547	-2.2	227,232	226,478	-0.3
Mountain.....	174	3,497	3,300	-5.6	77,046	74,308	-3.7
Pacific.....	1,815	41,079	40,660	-1.0	943,062	968,610	+2.6
All divisions.....	7,217	251,653	244,436	-2.9	5,991,831	5,963,004	-0.5

¹ See footnotes 4 to 12, p. 184.

^a For indexes of employment and pay-roll totals, see p. 211.

8. Employment in Hotels in June, 1930

EMPLOYMENT in hotels showed no change in June as compared with May and pay-roll totals decreased 0.3 per cent. The 2,069 hotels for which reports were received had in June 159,621 employees whose earnings in one week were \$2,732,847.

The South Atlantic division again showed the greatest decreases in both employment and pay roll, 7.2 per cent and 7.3 per cent, respectively, in the two items. The four Central divisions also reported losses in employment and pay roll from May to June. Seasonal increases in employment due to opening of summer-resort hotels were reported in the four remaining divisions.

Employment in June, 1930, was 1.3 per cent less than in June, 1929, and pay-roll totals were 0.6 per cent smaller.^a

Per capita earnings, obtained by dividing the total number of employees into the total amount of pay roll, should not be interpreted as being the entire earnings of hotel employees. The pay-roll totals here reported are cash payments only, with no regard to the value of board or room furnished employees, and, of course, no satisfactory estimate can be made of additional recompense in the way of tips. The additions to the money wages granted vary greatly, not only among localities but among hotels in one locality and among employees in one hotel. Some employees are furnished board and room, others are given board only for 1, 2, or 3 meals, while the division of tips is made in many ways.

Per capita earnings are further reduced by the considerable amount of part-time employment in hotels caused by conventions and banquets or other functions.

The details for each geographic division are shown in the table following.

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL HOTELS
IN MAY AND JUNE, 1930

Geographic division ¹	Hotels	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	122	8,698	9,612	+10.5	\$144,560	\$156,498	+8.3
Middle Atlantic.....	399	49,355	50,059	+1.4	907,866	915,064	+0.8
East North Central.....	400	34,598	34,404	-0.6	617,236	614,620	-0.4
West North Central.....	228	14,119	13,939	-1.3	207,512	206,723	-0.4
South Atlantic.....	187	14,474	13,432	-7.2	216,969	201,051	-7.3
East South Central.....	69	5,749	5,494	-4.4	73,958	71,338	-3.5
West South Central.....	147	9,470	9,306	-1.7	135,046	128,242	-5.0
Mountain.....	129	4,073	4,187	+2.8	70,157	71,110	+1.4
Pacific.....	388	19,067	19,188	+0.6	368,730	368,201	-0.1
All divisions.....	2,069	159,603	159,621	+⁽²⁾	2,742,634	2,732,847	-0.3

¹ See footnotes 4 to 12, p. 184.

² Less than one-tenth of 1 per cent.

^a For indexes of employment and pay-roll totals, see p. 211.

9. Employment in Canning and Preserving in June, 1930

CANNING and preserving establishments reported an increase of 26.4 per cent in employment in June as compared with May and an increase of 21.8 per cent in pay-roll totals. Substantial increases in employment and pay roll were shown in eight of the nine geographic divisions. The New England division alone reported decreased employment and earnings in June due to reduced operations in the fish-packing industry.

Reports were received from 779 establishments having in June 44,762 employees and pay-roll totals in one week of \$792,714.

Employment in June, 1930, was 8.4 per cent higher than in June, 1929, and pay-roll totals increased 13.4 per cent over the year period.^a

Details by geographic divisions are shown in the following table:

COMPARISON OF EMPLOYMENT AND PAY-ROLL TOTALS IN IDENTICAL CANNING AND PRESERVING ESTABLISHMENTS IN MAY AND JUNE, 1930

Geographic division ¹	Estab-lish-ments	Number on pay roll		Per cent of change	Amount of pay roll (1 week)		Per cent of change
		May, 1930	June, 1930		May, 1930	June, 1930	
New England.....	67	1,975	1,222	-38.1	\$28,243	\$17,676	-37.4
Middle Atlantic.....	81	7,772	8,846	+13.8	163,695	181,189	+10.7
East North Central.....	206	6,702	8,019	+19.7	132,285	155,480	+17.5
West North Central.....	47	1,168	1,333	+14.1	22,398	25,224	+12.6
South Atlantic.....	93	2,704	3,112	+15.1	35,682	37,255	+4.4
East South Central.....	26	828	1,147	+38.5	12,944	15,764	+21.8
West South Central.....	30	967	1,282	+32.6	7,423	8,413	+13.3
Mountain.....	41	797	1,231	+54.5	23,003	29,365	+27.7
Pacific.....	188	12,505	18,570	+48.5	225,292	322,348	+43.1
All divisions.....	779	35,418	44,762	+26.4	650,965	792,714	+21.8

¹ See footnotes 4 to 12, p. 184.

Indexes of Employment and Pay-Roll Totals—Mining, Quarrying, Public Utilities, Trade, Hotels, and Canning

THE following table shows the index numbers of employment and pay-roll totals for anthracite, bituminous coal, and metalliferous mining, quarrying, public utilities, wholesale and retail trade, hotels, and canning and preserving from January, 1929, to June, 1930, with the monthly average for 1929 as 100:

* For indexes of employment and pay-roll totals, see p. 211.

TREND OF EMPLOYMENT

[Monthly average, 1929=100]

Year and month	Anthracite mining		Bituminous coal mining		Metalliferous mining		Quarrying and non-metallic mining		Telephone and telegraph		Power, light, and water		Operation and maintenance of electric railroads ¹		Wholesale trade		Retail trade		Hotels		Canning and preserving	
	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals	Em- ploy- ment	Pay- roll totals
1929																						
January	105.7	100.7	106.4	106.1	93.1	88.0	91.6	85.9	94.3	94.5	92.9	91.7	99.7	98.7	97.7	96.7	99.2	99.0	97.1	98.5	50.8	57.3
February	106.0	122.1	107.7	116.6	94.6	91.8	91.9	88.9	95.3	93.0	92.6	91.8	99.1	97.6	96.9	96.4	94.6	94.5	99.8	102.0	48.9	59.2
March	98.0	90.8	106.8	108.6	97.0	99.1	96.0	95.0	96.5	98.7	92.8	94.5	97.0	98.0	97.3	98.5	96.2	96.1	100.9	103.4	49.4	54.9
April	100.7	88.3	100.2	89.2	100.6	104.6	99.6	100.5	97.8	98.3	95.9	95.5	98.5	99.5	97.9	97.8	95.5	96.0	99.7	100.6	90.6	98.9
May	103.7	99.0	96.6	91.9	100.8	104.6	104.1	107.1	100.4	99.4	98.4	98.1	100.4	101.0	99.0	99.0	97.3	97.1	98.1	98.9	62.0	71.2
June	92.9	80.7	94.7	90.0	103.8	105.6	106.6	110.5	101.5	100.0	100.7	100.4	101.2	101.7	99.2	98.6	97.4	98.6	99.3	98.7	76.6	71.9
July	83.2	64.7	94.1	85.6	101.5	99.0	104.7	104.7	102.6	104.1	103.2	102.3	102.2	101.9	100.4	100.5	93.6	95.9	101.1	99.8	126.8	109.2
August	91.1	78.4	95.7	92.8	103.2	100.1	106.7	110.3	103.7	101.8	105.4	103.8	102.2	102.0	101.3	100.0	93.6	95.2	102.6	99.4	184.8	180.1
September	101.9	103.8	97.2	98.6	102.1	102.0	106.6	109.8	102.5	100.4	105.5	106.6	101.4	101.5	101.9	103.3	97.6	99.2	102.8	100.2	210.1	207.9
October	106.1	133.9	98.8	106.8	101.9	103.1	103.6	105.8	101.9	105.1	105.7	106.0	100.5	100.0	102.9	102.7	101.7	102.6	100.6	100.2	143.3	134.5
November	104.0	100.5	101.0	106.0	103.0	102.2	98.6	96.0	101.9	101.2	104.7	104.1	99.4	98.4	102.9	101.9	106.7	105.2	100.0	99.8	95.1	91.6
December	107.1	137.2	101.4	108.2	98.5	99.7	90.1	85.4	101.8	103.9	102.5	105.8	98.3	99.8	102.6	104.7	126.2	120.6	97.7	98.9	61.3	63.4
Average	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1930																						
January	102.1	105.8	102.5	101.4	95.7	92.7	79.6	71.9	101.6	105.1	99.6	99.7	97.1	97.8	100.0	100.0	98.9	99.7	100.4	100.3	46.1	50.3
February	106.9	121.5	102.4	102.1	92.3	92.5	78.8	73.5	100.2	101.9	98.8	100.4	95.1	95.7	98.5	98.3	94.4	96.0	102.4	103.8	45.7	51.5
March	82.6	78.5	98.6	86.4	90.9	90.8	83.0	80.0	99.4	105.8	99.7	102.1	94.4	95.4	97.7	99.7	93.9	95.5	102.4	104.4	49.7	50.8
April	84.1	75.0	94.4	81.7	89.3	88.3	87.4	85.4	98.9	103.4	100.7	102.6	95.2	97.1	97.3	97.9	97.3	97.5	100.1	100.3	74.8	72.6
May	93.8	98.8	90.4	77.5	87.5	85.6	90.8	90.2	99.7	103.2	103.4	104.5	95.2	96.0	96.8	97.4	96.7	97.3	98.0	98.4	65.7	66.9
June	90.8	94.3	88.4	75.6	84.6	81.6	90.3	90.9	99.8	103.4	104.6	107.8	94.8	97.0	96.5	98.6	93.9	96.8	98.0	98.1	83.0	81.5

¹ Not including car building and repairing, electric railroads; see vehicles group, manufacturing industries, p. 188, et seq.

Employment on Class I Steam Railroads in the United States

THE monthly trend of employment from January, 1923, to May, 1930, on Class I railroads—that is, all roads having operating revenues of \$1,000,000 or over—is shown by the index numbers published in Table 1. These index numbers are constructed from monthly reports of the Interstate Commerce Commission, using the monthly average for 1926 as 100.

TABLE 1.—INDEX OF EMPLOYMENT ON CLASS I STEAM RAILROADS IN THE UNITED STATES, JANUARY, 1923, TO MAY, 1930

[Monthly average, 1926=100]

Month	1923	1924	1925	1926	1927	1928	1929	1930
January.....	98.3	96.9	95.6	95.8	95.5	89.3	88.2	85.4
February.....	98.6	97.0	95.4	96.0	95.3	89.0	88.9	86.3
March.....	100.5	97.4	95.2	96.7	95.8	89.9	91.1	85.5
April.....	102.0	98.9	96.6	98.9	97.4	91.7	92.2	87.0
May.....	105.0	99.2	97.8	100.2	99.4	94.5	94.9	88.6
June.....	107.1	98.0	98.6	101.6	100.9	95.9	96.1	.....
July.....	108.2	98.1	99.4	102.9	101.0	95.6	96.6	.....
August.....	109.4	99.0	99.7	102.7	99.5	95.7	97.4	.....
September.....	107.8	99.7	99.9	102.8	99.1	95.3	96.8	.....
October.....	107.3	100.8	100.7	103.4	98.9	95.3	96.9	.....
November.....	105.2	99.0	99.1	101.2	95.7	92.9	93.0	.....
December.....	99.4	96.0	97.1	98.2	91.9	89.7	88.8	.....
Average.....	104.1	98.3	97.9	100.0	97.5	93.9	93.3	86.6

¹ Average for 5 months.

Table 2 shows the total number of employees on the 15th day each of May, 1929, and April and May, 1930, and pay-roll totals for the entire month of each month considered.

In these tabulations data for the occupational group reported as "executives, officials, and staff assistants" are omitted.

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—MAY, 1929, APRIL AND MAY, 1930

[From monthly reports of Interstate Commerce Commission. As data for only the more important occupations are shown separately, the group totals are not the sum of the items under the respective groups]

Occupation	Number of employees at middle of month			Total earnings		
	May, 1929	April, 1930	May, 1930	May, 1929	April, 1930	May, 1930
Professional, clerical, and general	276, 145	261, 206	260, 633	\$39, 834, 672	\$38, 531, 351	\$38, 589, 452
Clerks.....	153, 323	145, 872	145, 221	21, 525, 098	20, 338, 009	20, 424, 305
Stenographers and typists.....	24, 738	24, 220	24, 130	3, 248, 701	3, 202, 695	3, 193, 339
Maintenance of way and structures	442, 067	376, 604	408, 042	42, 034, 650	36, 020, 163	38, 441, 526
Laborers, extra gang and work train.....	76, 841	57, 173	69, 309	6, 222, 706	4, 404, 226	5, 273, 817
Laborers, track, and roadway section.....	230, 638	192, 852	208, 997	17, 256, 641	14, 157, 525	15, 313, 913
Maintenance of equipment and stores	456, 358	424, 047	422, 106	65, 136, 374	58, 110, 814	57, 690, 602
Carmen.....	90, 521	90, 727	90, 577	16, 396, 854	14, 135, 372	14, 094, 616
Machinists.....	54, 992	52, 402	52, 413	9, 513, 721	8, 606, 878	8, 524, 700
Skilled trades helpers.....	101, 243	93, 287	92, 808	12, 478, 340	10, 924, 330	10, 809, 096
Laborers (shops, engine houses, power plants, and stores).....	37, 206	34, 909	34, 715	3, 663, 750	3, 334, 589	3, 371, 566
Common laborers (shops, engine houses, power plants, and stores).....	52, 273	47, 572	47, 385	4, 412, 250	3, 877, 879	3, 830, 098

TABLE 2.—EMPLOYMENT AND EARNINGS OF RAILROAD EMPLOYEES—MAY, 1929, APRIL AND MAY, 1930—Continued

Occupation	Number of employees at middle of month			Total earnings		
	May, 1929	April, 1930	May, 1930	May, 1929	April, 1930	May, 1930
Transportation, other than train, engine and yard	195,902	185,469	184,906	25,302,994	23,322,370	23,701,857
Station agents.....	29,310	28,864	28,855	4,778,845	4,608,242	4,692,364
Telegraphers, telephoners, and towermen.....	23,202	22,276	22,101	3,688,941	3,430,065	3,513,063
Truckers (stations, warehouses, and platforms).....	34,342	30,319	30,052	3,409,599	2,873,603	2,894,452
Crossing and bridge flagmen and gatemen.....	20,665	20,031	20,015	1,600,482	1,562,514	1,570,017
Transportation (yard masters, switch tenders, and hostlers)	21,671	20,753	20,622	4,321,138	4,044,393	4,100,412
Transportation, train and engine	311,227	287,611	288,935	66,135,952	57,675,965	59,064,702
Road conductors.....	34,999	32,421	32,553	8,811,126	7,784,747	7,992,501
Road brakemen and flagmen.....	69,100	63,100	63,433	12,676,323	10,932,443	11,231,814
Yard brakemen, and yard helpers.....	52,851	48,751	49,101	9,766,187	8,411,631	8,589,941
Road engineers and motormen.....	41,437	38,649	38,820	11,838,493	10,362,705	10,647,276
Road fireman and helpers.....	42,063	39,163	39,386	8,701,525	7,569,840	7,776,660
All employees	1,697,400	1,555,692	1,584,643	242,765,789	217,704,996	221,588,551

Changes in Employment and Pay Rolls in Various States

THE following data as to changes in employment and pay rolls have been compiled from reports received from the various State labor offices:

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES

Monthly period

State, and industry group	Per cent of change, April to May, 1930		State, and industry group	Per cent of change, May to June, 1930	
	Employment	Pay roll		Employment	Pay roll
Illinois			Iowa		
Stone, clay, and glass products.....	+3.3	+5.6	Food and kindred products.....	+3.4	-----
Metals, machinery, and conveyances.....	-3.4	-6.2	Textiles.....	+6.4	-----
Wood products.....	-1.6	+9	Iron and steel works.....	-11.8	-----
Furs and leather goods.....	-9.0	-5.1	Lumber products.....	+2.1	-----
Chemicals, oils, paints, etc.....	-1.4	+7	Leather products.....	+4.5	-----
Printing and paper goods.....	+4.3	+3.6	Paper products, printing and publishing.....	-2	-----
Textiles.....	-9	-8	Patent medicines, chemicals, and compounds.....	-5.4	-----
Clothing and millinery.....	+5	+3	Stone and clay products.....	-3.9	-----
Food, beverages, and tobacco.....	+1.5	+2.3	Tobacco and cigars.....	+2.3	-----
Miscellaneous.....	+2.9	-6.3	Railway-car shops.....	-11.8	-----
All manufacturing	-1.7	-2.9	Various industries.....	+2.1	-----
Trade, wholesale and retail.....	+1.2	+4.0	All industries	-2.9	-----
Services.....	+1.1	-4	Maryland		
Public utilities.....	+3	+1.7	Food products.....	+3	-0.4
Coal mining.....	-19.0	-27.7	Textiles.....	-2.3	-2.8
Building and contracting.....	+14.8	+23.0	Iron and steel and their products.....	-2.1	-5.5
All nonmanufacturing	-7	+7	Lumber and its products.....	-6.0	-10.8
All industries	-1.4	-1.6	Leather and its products.....	-3	+2.1
			Rubber tires.....	+1.1	-1.8

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, May to June, 1930	
	Employment	Pay roll
Maryland—Continued		
Paper and printing.....	+0.6	-2.2
Chemicals and allied products.....	-11.6	-7.7
Stone, clay, and glass products.....	-4.5	-1.4
Metal products other than iron and steel.....	+1.6	+8.2
Tobacco products.....	-4.2	+10.1
Transportation equipment.....	+18.2	+5.9
Car building and repairing.....	+7.7	-10.1
Miscellaneous.....	-6.7	-7.1
All manufacturing.....	-1.3	-3.4
Retail department stores.....	+2.3	+6.7
Wholesale establishments.....	-9	+5
Public utilities.....	+1.9	+5.8
Coal mines.....	-3.2	-8.2
Hotels.....	-9.7	+1.9
Quarries.....	-4.3	+5
	Employment—index numbers (1925=1927=100)	
	April, 1930	May, 1930
Massachusetts		
Boot and shoe cut stock and findings.....	104.6	96.5
Boots and shoes.....	87.4	82.6
Bread and other bakery products.....	104.7	108.0
Clothing, men's.....	87.3	75.5
Clothing, women's.....	112.2	109.5
Confectionery.....	84.4	82.7
Cotton goods.....	66.1	62.6
Dyeing and finishing textiles.....	93.3	92.1
Electrical machinery, apparatus and supplies.....	71.4	71.6
Foundry and machine-shop products.....	105.2	105.0
Furniture.....	85.2	83.7
Hosiery and knit goods.....	72.5	71.2
Leather, tanned, curried, and finished.....	93.5	92.3
Paper and wood pulp.....	93.2	94.1
Printing and publishing.....	105.8	105.4
Rubber footwear.....	80.1	77.6
Rubber goods, tires, and tubes.....	71.2	69.3
Silk goods.....	86.5	79.7
Textile machinery and parts.....	75.4	66.5
Woolen and worsted goods.....	64.3	68.1
All industries.....	80.4	78.3

State, and industry group	Per cent of change, March to April, 1930	
	Employment	Pay roll
New Jersey		
Food and kindred products.....	-4.1	-6
Textiles and their products.....	-4.2	-8.3
Iron and steel and their products.....	-3.3	-3.3
Lumber and its products.....	-5	-2.1
Leather and its products.....	-1.7	-2.0
Tobacco products.....	-4.8	-6.2
Paper and printing.....	+3.4	+9.2
Chemicals and allied products.....	-8	+4.4
Stone, clay, and glass products.....	+2.4	+3.6
Metal products other than iron and steel.....	-4.1	-3.8
Vehicles for land transportation.....	-4	-1.2
Miscellaneous.....	+1.7	+3
All industries.....	-2.0	-2.3
	May to June, 1930	
New York		
Stone, clay, and glass.....	+4	-4
Miscellaneous stone and minerals.....	-1.8	-2.1
Lime, cement, and plaster.....	+3.9	+3.2
Brick, tile, and pottery.....	-1.6	-9
Glass.....	+2.2	-1.2
Metals and machinery.....	-2.7	-2.9
Silver and jewelry.....	-2.4	-1.4
Brass, copper, and aluminum.....	-6	+1.4
Iron and steel.....	-8.4	-10.9
Structural and architectural iron.....	-1.7	-3.6
Sheet metal and hardware.....	-5	-1.3
Firearms, tools, and cutlery.....	-6	+8
Cooking, heating, and ventilating apparatus.....	-3.1	-5.2
Machinery, including electrical apparatus.....	-8	+1.0
Automobiles, carriages, and airplanes.....	-11.1	-12.2
Railroad equipment and repair.....	-8	-2.5
Boat and ship building.....	-3.8	-11.1
Instruments and appliances.....	-1.6	-1.2
Wood manufactures.....	-4	-2.6
Saw and planing mills.....	+3.9	+3.0
Furniture and cabinet work.....	-2.4	-3.9
Pianos and other musical instruments.....	-1.4	-9.0
Miscellaneous wood.....	-1.0	-2

Monthly period—Continued

³ Preliminary figures.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Monthly period—Continued

State, and industry group	Per cent of change, May to June, 1930		State, and industry group	Per cent of change, April to May, 1930	
	Employment	Pay roll		Employment	Pay roll
Texas			Wisconsin—Continued		
Auto and body works.....	+7.1	-----	Manual—Continued		
Bakeries.....	-3.0	-----	Stone crushing and quarrying.....	-5.0	-3.0
Confectioneries.....	-2.5	-----	Manufacturing:		
Pure food products.....	-4.7	-----	Stone and allied industries.....	+5.6	+15.8
Ice-cream factories.....	+3.2	-----	Metal.....	-1.9	-7.5
Flour mills.....	+1.4	-----	Wood.....	-5.6	-6.2
Ice factories.....	+17.2	-----	Rubber.....	+1.1	+2.9
Meat packing and slaughtering.....	-4.9	-----	Leather.....	-.6	-3.3
Cotton-oil mills.....	-39.9	-----	Paper.....	+3.3	-3.3
Cotton compresses.....	-13.7	-----	Textiles.....	-3.4	-1.8
Men's clothing manufacture.....	+4.1	-----	Foods.....	+12.0	+15.7
Women's clothing manufacture.....	-9.2	-----	Printing and publishing.....	+1.1	-1.4
Brick, tile, and terra cotta.....	+4.6	-----	Chemicals (including soap, glue, and explosives).....	-1.2	+3.3
Foundries and machine shops.....	-.4	-----	All manufacturing.....	-7	-2.9
Structural-iron works.....	+3.1	-----	Construction:		
Railroad-car shops.....	-7.1	-----	Building.....	+4.1	+8.8
Electric railway car shops.....	-1.2	-----	Highway.....	+51.7	+60.3
Petroleum refining.....	+1.3	-----	Railroad.....	+31.5	+21.6
Sawmills.....	-.2	-----	Marine dredging, sewer digging.....	+28.1	+43.3
Lumber mills.....	-.8	-----	Communication:		
Furniture manufacturers.....	+1.3	-----	Steam railways.....	+8.2	+3.6
Paper-box manufacturers.....	-2.0	-----	Electric railways.....	+9	+2
Cotton textile mills.....	+8	-----	Express, telephone and telegraph.....	-2.2	-6.0
Cement plants.....	-2.2	-----	Light and power.....	+3.4	+2.5
Commercial printing.....	-6.0	-----	Wholesale trade.....	+2.4	+11.1
Newspaper publishing.....	-1.5	-----	Hotels and restaurants.....	-2.0	-----
Quarrying—nonmetallic mines.....	+39.4	-----	Laundry and dyeing.....	-3	+2.6
Public utilities.....	+3	-----			
Retail stores.....	-2.6	-----	Nonmanual		
Wholesale stores.....	+7	-----	Manufacturing, mines, and quarries.....	-.3	-15.5
Hotels.....	+8	-----	Construction.....	+3.0	+1.6
Miscellaneous.....	-2.8	-----	Communication.....	+2.9	+2.1
All industries.....	+2	-----	Wholesale trade.....	-.2	-.1
			Retail trade, sales force only.....	+2.7	+9
Wisconsin			Miscellaneous professional services.....	+3.4	-2.2
Manual					
Logging.....	-28.9	-30.5			
Mining:					
Lead and zinc.....	0	+1.9			
Iron.....	+4.6	+4.3			

TREND OF EMPLOYMENT

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PERCENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—
Continued

Yearly period

State, and industry group	Per cent of change, May, 1929, to May, 1930		State, and industry group	Per cent of change, June, 1929, to June, 1930	
	Employ- ment	Pay roll		Employ- ment	Pay roll
California			New York		
Stone, clay, and glass products.....	-17.9	-20.3	Stone, clay, and glass.....	-14.1	-20.2
Metals, machinery, and conveyances.....	-11.4	-12.6	Miscellaneous stone and minerals.....	-22.9	-24.2
Wood manufactures.....	-21.7	-25.0	Lime, cement, and plaster.....	-14.3	-20.4
Leather and rubber goods.....	-17.0	-17.6	Brick, tile, and pottery.....	-12.8	-21.7
Chemicals, oils, paints, etc.....	-20.0	-20.9	Glass.....	-5.9	-12.1
Printing and paper goods.....	+1.4	-6	Metals and machinery.....	-16.8	-19.8
Textiles.....	-2.1	-4.4	Silver and jewelry.....	-7.7	-13.1
Clothing, millinery, and laundering.....	-10.1	-12.4	Brass, copper, and aluminum.....	-13.4	-18.0
Foods, beverages, and tobacco.....	+1.3	-9.8	Iron and steel.....	-23.3	-26.8
Miscellaneous.....	-17.4	+1	Structural and architectural iron.....	+9.0	+11.5
All industries.....	-12.0	-14.1	Sheet metal and hardware.....	-15.7	-17.4
Public utilities.....	+9.5	+11.7	Firearms, tools, and cutlery.....	-2.8	-3.2
	Employment—index numbers (1925-1927=100)		Cooking, heating, and ventilating apparatus.....	-13.9	-22.4
	May, 1929	May, 1930	Machinery, including electrical apparatus.....	-18.2	-18.6
Massachusetts			Automobiles, carriages, and airplanes.....	-39.7	-46.9
Boot and shoe cut stock and findings.....	103.4	96.5	Railroad equipment and repair.....	-7.0	-10.8
Boots and shoes.....	88.2	82.6	Boat and ship building.....	+13.4	+12.2
Bread and other bakery products.....	106.6	108.0	Instruments and appliances.....	-9.6	-10.4
Clothing, men's.....	105.0	75.5	Wood manufactures.....	-13.9	-18.4
Clothing, women's.....	139.0	109.5	Saw and planing mills.....	-5.4	-4.4
Confectionery.....	80.8	82.7	Furniture and cabinet work.....	-20.2	-24.9
Cotton goods.....	80.2	62.6	Pianos and other musical instruments.....	-23.8	-35.0
Dyeing and finishing textiles.....	102.1	92.1	Miscellaneous wood.....	-3.7	-5.7
Electrical machinery, apparatus, and supplies.....	97.6	71.6	Furs, leather, and rubber goods.....	+1.6	-9.6
Foundry and machine-shop products.....	110.2	105.0	Leather.....	+4	+5.2
Furniture.....	93.4	83.7	Furs and fur goods.....	+9.8	+6.8
Hosiery and knit goods.....	73.9	71.2	Shoes.....	+3.9	-13.1
Leather, tanned, curried, and finished.....	96.9	92.3	Other leather and canvas goods.....	+13.3	+15.4
Paper and wood pulp.....	96.8	94.1	Rubber and gutta percha.....	-28.8	-34.1
Printing and publishing.....	104.1	105.4	Pearl, horn, bone, etc.....	-11.7	-13.3
Rubber footwear.....	87.8	77.6	Chemicals, oil, paints, etc.....	+1.3	+2.2
Rubber goods, tires, and tubes.....	82.8	69.3	Drugs and chemicals.....	-3.2	-1.6
Silk goods.....	88.8	79.7	Paints and colors.....	-8.1	-5.7
Textile machinery and parts.....	84.8	66.5	Oil products.....	-6.0	-5.0
Woolen and worsted goods.....	83.1	68.1	Miscellaneous chemicals.....	+13.7	+12.8
All industries.....	90.0	78.3	Paper.....	-4.3	-6.8
			Printing and paper goods.....	-1.2	-1.2
			Paper boxes and tubes.....	-6.8	-12.3
			Miscellaneous paper goods.....	-2.9	-3.1
			Printing and book-making.....	-3.3	(1)

¹ Less than one-half of 1 per cent.

PER CENT OF CHANGE IN EMPLOYMENT AND PAY ROLLS IN SPECIFIED STATES—Continued

Yearly period—Continued

State, and industry group	Per cent of change, June, 1929, to July, 1930		State, and industry group	Index numbers (1925=100)—employ- ment	
	Employ- ment	Pay roll		June, 1929	June, 1930
New York—Continued			Pennsylvania		
Textiles.....	-16.4	-25.3	Metal products.....	100.9	90.6
Silk and silk goods.....	-15.4	-19.6	Transportation equipment.....	79.8	78.3
Wool manufactures.....	-27.9	-42.5	Textile products.....	104.1	97.2
Cotton goods.....	-31.9	-43.9	Foods and tobacco.....	105.1	112.3
Knit goods (excluding silk).....	-5.3	-11.3	Stone, clay, and glass prod- ucts.....	87.2	70.6
Other textiles.....	-3.3	-5.0	Lumber products.....	99.6	79.0
Clothing and millinery.....	-12.8	-17.7	Chemical products.....	97.9	101.4
Men's clothing.....	-15.8	-27.3	Leather and rubber prod- ucts.....	98.3	97.1
Men's furnishings.....	-19.2	-24.9	Paper and printing.....	100.8	98.7
Women's clothing.....	-4.9	-6.0	All manufacturing.....	99.6	93.5
Women's underwear.....	-10.4	-11.7			
Women's headwear.....	-16.8	-23.4			
Miscellaneous sewing.....	-16.2	-15.1			
Laundering and clean- ing.....	-3.1	-4			
Food and tobacco.....	-10.8	-10.0			
Flour, feed, and cereals.....	-17.5	-17.4			
Canning and preserv- ing.....	-3.4	+10.2			
Other groceries.....	-3.7	-4.3			
Meat and dairy prod- ucts.....	-6.0	-6.3			
Bakery products.....	-11.6	-10.3			
Candy.....	-9.0	-9.4			
Beverages.....	-14.0	-8.6			
Tobacco.....	-34.3	-37.4			
Water, light, and power.....	+3.6	+6.2			
All industries.....	-11.6	-15.0			
Oklahoma			Texas		
Cottonseed-oil mills.....	-31.2	-29.0	Auto and body works.....	-16.3	
Food production:			Bakeries.....	-4.7	
Bakeries.....	+58.0	+19.9	Confectioneries.....	+74.1	
Confections.....	+42.8	+33.1	Pure-food products.....	-1.6	
Creameries and dairies.....	+39.0	+66.1	Ice-cream factories.....	+16.3	
Flour mills.....	+11.6	+32.7	Flour mills.....	+8.9	
Ice and ice cream.....	-24.0	-18.4	Ice factories.....	-7.8	
Meat and poultry.....	-7.3	-12.2	Meat packing and slaugh- tering.....	+4	
Lead and zinc:			Cotton-oil mills.....	-62.6	
Mines and mills.....	-26.7	-22.9	Cotton compresses.....	-21.3	
Smelters.....	-48.2	-46.6	Men's clothing manufac- ture.....	-7.1	
Metals and machinery:			Women's clothing manu- facture.....	+2.9	
Auto repairs, etc.....	-15.1	-8.0	Brick, tile, and terra cotta.....	-14.9	
Machine shops and foundries.....	-5.5	-6.8	Foundries and machine shops.....	-15.2	
Tank construction and erection.....	+49.6	+38.9	Structural-iron works.....	-13.8	
Oil industry:			Railroad car shops.....	-2.9	
Producing and gaso- line manufacture.....	+8.6	+16.2	Electric railway car shops.....	+1	
Refineries.....	+1.7	+11.0	Petroleum refining.....	-7.5	
Printing: Job work.....	+10.9	+7.9	Sawmills.....	+2.8	
Public utilities:			Lumber mills.....	-42.7	
Steam railway shops.....	+10.3	+9	Furniture manufacturers.....	-1.4	
Street railways.....	+6.3	+19.7	Paper-box manufacturers.....	-7.3	
Water, light, and power.....	-2.2	-4.1	Cotton textile mills.....	-7	
Stone, clay, and glass:			Cement plants.....	-8.0	
Brick and tile.....	-19.2	-8.7	Commercial printing.....	-9.7	
Cement and plaster.....	-10.7	-11.0	Newspaper publishing.....	+3.1	
Crushed stone.....	-4.8	-4.4	Quarrying, nonmetallic mines.....	+6.5	
Glass manufacture.....	+2.4	-3	Public utilities.....	-1.6	
Textiles and cleaning:			Retail stores.....	-3.2	
Textile manufacture.....	+13.8	-10.8	Wholesale stores.....	-2.1	
Laundries, etc.....	-2.4	+1.3	Hotels.....	-7.0	
Woodworking:			Miscellaneous.....	-22.6	
Sawmills.....	-5.1	-4			
Millwork, etc.....	-15.8	-14.0			
All industries.....	-5.2	-2.2			

* Preliminary figures.

WHOLESALE AND RETAIL PRICES

Retail Prices of Food in the United States

THE following tables are compiled from simple averages of the actual selling prices¹ received monthly by the Bureau of Labor Statistics from retail dealers.

Table 1 shows for the United States retail prices of food June 15, 1929, and May 15 and June 15, 1930, as well as the percentage changes in the year and in the month. For example, the retail price per pound of potatoes was 3.1 cents on June 15, 1929, and 4.3 cents on May 15, 1930, and 4.2 cents on June 15, 1930.

These figures show an increase of 35 per cent in the year and a decrease of 2 per cent in the month.

The cost of various articles of food combined shows a decrease of 4.4 per cent June 15, 1930, as compared with June 15, 1929, and a decrease of 1.4 per cent June 15, 1930, as compared with May 15, 1930.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PERCENT OF INCREASE OR DECREASE JUNE 15, 1930, COMPARED WITH MAY 15, 1930, AND JUNE 15, 1929

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (–) June 15, 1930, compared with—	
		June 15, 1929	May 15, 1930	June 15, 1930	June 15, 1929	May 15, 1930
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Sirloin steak.....	Pound.....	51.2	48.3	47.9	–6	–1
Round steak.....	do.....	45.8	43.0	42.7	–7	–1
Rib roast.....	do.....	37.6	35.6	35.1	–7	–1
Chuck roast.....	do.....	30.7	28.7	28.1	–8	–2
Plate beef.....	do.....	21.3	19.9	19.4	–9	–3
Pork chops.....	do.....	37.6	36.1	36.6	–3	+1
Bacon, sliced.....	do.....	43.8	42.3	42.3	–3	0
Ham, sliced.....	do.....	55.3	54.0	54.0	–2	0
Lamb, leg of.....	do.....	41.2	35.9	36.5	–11	+2
Hens.....	do.....	41.3	37.4	35.7	–14	–5
Salmon, red, canned.....	do.....	31.4	31.8	31.8	+1	0
Milk, fresh.....	Quart.....	14.2	14.0	14.0	–1	0
Milk, evaporated.....	16-oz. can.....	10.9	10.2	10.1	–7	–1
Butter.....	Pound.....	53.8	46.3	43.3	–20	–6
Oleomargarine (all butter substitutes).....	do.....	27.2	25.8	25.6	–6	–1
Cheese.....	do.....	38.0	35.8	34.9	–8	–3
Lard.....	do.....	18.3	16.7	16.6	–9	–1
Vegetable lard substitute.....	do.....	24.8	24.3	24.3	–2	0
Eggs, strictly fresh.....	Dozen.....	41.4	33.7	33.6	–19	–0.3
Bread.....	Pound.....	9.0	8.8	8.8	–2	0
Flour.....	do.....	4.9	4.8	4.8	–2	0
Corn meal.....	do.....	5.3	5.3	5.3	0	0
Rollod oats.....	do.....	8.9	8.7	8.7	–2	0
Corn flakes.....	8-oz. package.....	9.5	9.4	9.4	–1	0
Wheat cereal.....	28-oz. package.....	25.4	25.4	25.4	0	0

¹ In addition to monthly retail prices of food and coal, the bureau publishes periodically the prices of gas and electricity for household use in each of 51 cities. At present this information is being collected in June and December of each year.

TABLE 1.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE OR DECREASE JUNE 15, 1930, COMPARED WITH MAY 15, 1930, AND JUNE 15, 1929—Continued

Article	Unit	Average retail price on—			Per cent of increase (+) or decrease (-) June 15, 1930, compared with—	
		June 15, 1929	May 15, 1930	June 15, 1930	June 15, 1929	May 15, 1930
		<i>Cents</i>	<i>Cents</i>	<i>Cents</i>		
Macaroni.....	Pound.....	19.7	19.5	19.4	-2	-1
Rice.....	do.....	9.7	9.5	9.5	-2	0
Beans, navy.....	do.....	14.2	11.6	11.5	-19	-1
Potatoes.....	do.....	3.1	4.3	4.2	+35	-2
Onions.....	do.....	7.0	6.0	5.9	-16	-2
Cabbage.....	do.....	4.8	7.3	5.6	+17	-23
Pork and beans.....	No. 2 can.....	11.9	11.0	11.0	-8	0
Corn, canned.....	do.....	15.8	15.4	15.4	-3	0
Peas, canned.....	do.....	16.6	16.3	16.3	-2	0
Tomatoes, canned.....	do.....	13.4	12.8	12.5	-7	-2
Sugar.....	Pound.....	6.4	6.3	6.1	-5	-3
Tea.....	do.....	77.5	77.5	77.6	+1	+1
Coffee.....	do.....	49.4	40.9	40.6	-18	-1
Prunes.....	do.....	14.6	17.4	17.0	+16	-2
Raisins.....	do.....	11.6	12.0	12.0	+3	0
Bananas.....	Dozen.....	31.7	30.6	31.0	-2	-1
Oranges.....	do.....	44.0	66.7	67.3	+53	-1
Weighted food index.....					-4.4	-1.4

Table 2 shows for the United States average retail prices of specified food articles on June 15, 1913, and on June 15 of each year from 1924 to 1930, together with percentage changes in June of each of these specified years compared with June, 1913. For example, the retail price per pound of sirloin steak was 25.9 cents on June 15, 1913; 40.7 cents on June 15, 1924; 41.0 cents on June 15, 1925; 42.0 cents on June 15, 1926; 42.4 cents on June 15, 1927; 47.4 cents on June 15, 1928; 51.2 cents on June 15, 1929; and 47.9 cents on June 15, 1930. As compared with June 15, 1913, these figures show increases of 57 per cent on June 15, 1924; 58 per cent on June 15, 1925; 62 per cent on June 15, 1926; 64 per cent on June 15, 1927; 83 per cent on June 15, 1928; 98 per cent on June 15, 1929; and 85 per cent on June 15, 1930.

The cost of the various articles of food combined showed an increase of 51.3 per cent in June, 1930, as compared with June, 1913.

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TABLE 2.—AVERAGE RETAIL PRICES OF SPECIFIED FOOD ARTICLES AND PER CENT OF INCREASE JUNE 15, OF CERTAIN SPECIFIED YEARS, COMPARED WITH JUNE 15, 1913

[Percentage changes of five-tenths of 1 per cent and over are given in whole numbers]

Article	Average retail prices on June 15—								Per cent of increase June 15 of each specified year compared with June 15, 1913							
	1913	1924	1925	1926	1927	1928	1929	1930	1924	1925	1926	1927	1928	1929	1930	
	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.								
Sirloin steak.....pound..	25.9	40.7	41.0	42.0	42.4	47.4	51.2	47.9	57	58	62	64	83	98	85	
Round steak.....do.....	22.6	34.8	35.2	36.2	37.0	41.6	45.8	42.7	54	56	60	64	84	103	89	
Rib roast.....do.....	20.1	29.4	29.8	30.6	31.1	34.7	37.6	35.1	46	48	52	55	73	87	75	
Chuck roast.....do.....	16.3	21.2	21.8	22.7	23.5	27.6	30.7	28.1	30	34	39	44	69	88	72	
Plate beef.....do.....	12.2	13.2	13.8	14.6	15.2	18.5	21.3	19.4	8	13	20	25	52	75	59	
Pork chops.....do.....	20.8	30.2	36.2	42.0	34.7	34.8	37.6	36.6	45	74	102	67	67	81	56	
Bacon, sliced.....do.....	27.3	36.2	47.0	51.5	47.1	43.2	43.8	42.3	33	72	89	73	58	60	75	
Ham, sliced.....do.....	27.3	44.6	53.0	59.7	55.5	51.7	55.3	54.0	63	94	119	103	89	103	98	
Lamb, leg of.....do.....	19.4	38.7	38.4	41.9	41.0	42.2	41.2	36.5	99	98	116	111	118	112	88	
Hens.....do.....	21.9	35.9	36.9	40.2	36.3	37.1	41.3	35.7	64	68	84	66	69	89	63	
Salmon, red, canned																
pound.....		31.2	31.3	38.1	32.3	35.3	31.4	31.8								
Milk, fresh.....quart..	8.8	13.5	13.7	13.8	13.9	14.0	14.2	14.0	53	56	57	58	59	61	59	
Milk, evaporated																
16-ounce can..		11.6	11.3	11.5	11.5	11.1	10.9	10.1								
Butter.....pound.....	35.2	48.6	52.7	50.3	51.8	53.9	53.8	43.3	38	50	43	47	53	53	23	
Oleomargarine (all butter substitutes)																
pound.....		29.1	30.3	30.1	28.2	27.3	27.2	25.6								
Cheese.....do.....	21.8	34.4	36.5	35.7	37.0	38.1	38.0	34.9	58	67	64	70	75	74	60	
Lard.....do.....	15.8	16.9	22.9	22.6	18.8	18.2	18.3	16.6	7	45	43	19	15	16	5	
Vegetable lard substitute																
pound.....		24.9	25.8	25.8	25.1	24.9	24.8	24.3								
Eggs, strictly fresh																
dozen.....	27.9	36.1	42.3	40.7	33.5	38.8	41.4	33.6	29	52	46	20	39	48	20	
Bread.....pound.....	5.6	8.7	9.4	9.4	9.3	9.2	9.0	8.8	55	68	68	66	64	61	57	
Flour.....do.....	3.3	4.6	6.1	6.1	5.5	5.7	4.9	4.8	39	85	85	67	73	48	45	
Corn meal.....do.....	2.9	4.4	5.4	5.1	5.2	5.3	5.3	5.3	52	86	76	79	83	83	83	
Rolled oats.....do.....		8.8	9.2	9.1	9.0	8.9	8.9	8.7								
Corn flakes																
8-ounce package..		9.7	11.0	10.9	10.0	9.5	9.5	9.4								
Wheat cereal																
28-ounce package..		24.3	24.6	25.4	25.4	25.5	25.4	25.4								
Macaroni.....pound.....		19.5	20.5	20.3	20.0	19.8	19.7	19.4								
Rice.....do.....	8.6	9.9	11.0	11.7	10.7	9.9	9.7	9.5	15	28	36	24	15	13	1	
Beans, navy.....do.....		9.7	10.3	9.2	9.3	12.3	14.2	11.5								
Potatoes.....do.....	1.8	3.3	3.5	5.0	6.0	2.9	3.1	4.2	83	94	178	233	61	72	133	
Onions.....do.....		6.8	9.9	7.4	8.8	6.4	7.0	5.9								
Cabbage.....do.....		5.8	6.0	6.1	9.6	5.5	4.8	5.6								
Pork and beans																
No. 2 can.....do....		12.7	12.4	11.9	11.5	11.4	11.9	11.0								
Corn, canned.....do....		15.8	18.2	16.4	15.6	15.9	15.8	15.4								
Peas, canned.....do....		18.1	18.4	17.4	16.7	16.8	16.6	16.3								
Tomatoes, canned																
No. 2 can.....do....		13.0	13.8	11.9	12.0	11.6	13.4	12.5								
Sugar, granulated																
pound.....	5.3	8.3	7.2	6.9	7.3	7.3	6.4	6.1	57	36	30	38	38	21	15	
Tea.....do.....	54.4	70.9	75.8	76.9	77.3	77.3	77.5	77.6	30	39	41	42	42	42	43	
Coffee.....do.....	29.8	42.3	50.8	51.0	47.9	49.2	49.4	40.6	42	70	71	61	65	66	36	
Prunes.....do.....		17.4	17.3	17.1	15.6	13.6	14.6	17.0								
Raisins.....do.....		15.4	14.5	14.7	14.3	13.6	11.6	12.0								
Bananas.....dozen.....		35.8	36.5	35.9	33.5	32.5	31.7	31.0								
Oranges.....do.....		45.1	60.9	50.3	49.3	62.6	44.0	67.3								
All articles combined ¹									45.7	58.6	63.3	62.1	56.2	58.4	51.3	

¹ Beginning with January, 1921, index numbers showing the trend in the retail cost of food have been composed of the articles shown in Tables 1 and 2, weighted according to the consumption of the average family. From January, 1913, to December, 1920, the index numbers included the following articles: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, lard, hens, flour, corn meal, eggs, butter, milk, bread, potatoes, sugar, cheese, rice, coffee, and tea.

Table 3 shows the trend in the retail cost of three important groups of food commodities, viz, cereals, meats, and dairy products, by years, from 1913 to 1929, and by months for 1928, 1929, and 1930. The articles within these groups are as follows:

Cereals: Bread, flour, corn meal, rice, rolled oats, corn flakes, wheat cereal, and macaroni.

Meats: Sirloin steak, round steak, rib roast, chuck roast, plate beef, pork chops, bacon, ham, hens, and leg of lamb.

Dairy products: Butter, cheese, fresh milk, and evaporated milk.

TABLE 3.—INDEX NUMBERS OF RETAIL COST OF CEREALS, MEATS, AND DAIRY PRODUCTS FOR THE UNITED STATES, 1913 TO JUNE, 1930

[Average cost in 1913=100.0]

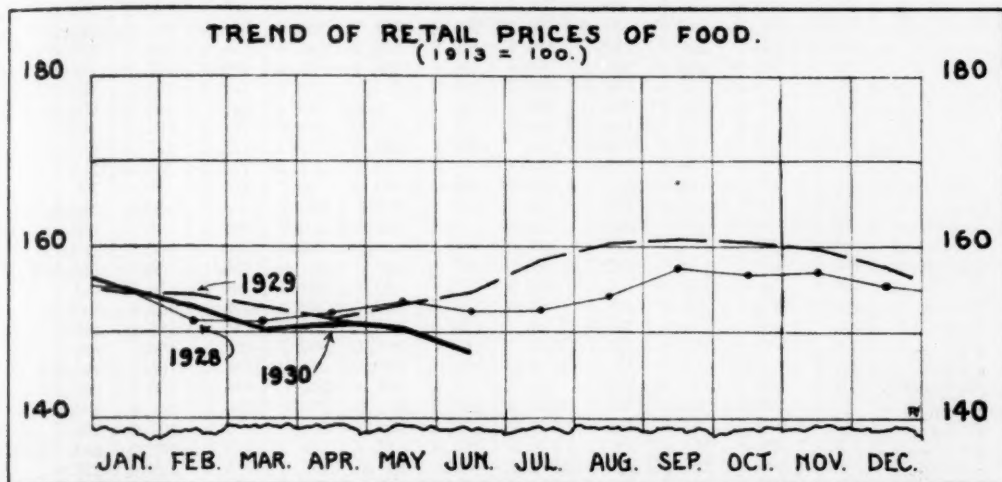
Year and month	Cereals	Meats	Dairy products	Year and month	Cereals	Meats	Dairy products
1913: Average for year....	100.0	100.0	100.0	1928—Continued.			
1914: Average for year....	106.7	103.4	97.1	October.....	165.9	188.9	151.1
1915: Average for year....	121.6	99.6	96.1	November.....	165.3	184.9	152.5
1916: Average for year....	126.8	108.2	103.2	December.....	164.2	179.1	153.5
1917: Average for year....	186.5	137.0	127.6	1929: Average for year....	164.1	188.4	148.6
1918: Average for year....	194.3	172.8	153.4	January.....	164.1	180.9	151.9
1919: Average for year....	198.0	184.2	176.6	February.....	164.1	180.3	152.6
1920: Average for year....	232.1	185.7	185.1	March.....	164.1	182.8	152.4
1921: Average for year....	179.8	158.1	149.5	April.....	164.1	187.5	148.9
1922: Average for year....	159.3	150.3	135.9	May.....	163.5	191.2	147.5
1923: Average for year....	156.9	149.0	147.6	June.....	163.0	192.4	146.8
1924: Average for year....	160.4	150.2	142.8	July.....	163.5	195.9	146.8
1925: Average for year....	176.2	163.0	147.1	August.....	164.7	196.0	147.1
1926: Average for year....	175.5	171.3	145.5	September.....	165.2	194.2	148.1
1927: Average for year....	170.7	169.9	148.7	October.....	163.5	189.2	149.3
1928: Average for year....	167.2	179.2	150.0	November.....	163.6	184.1	147.0
January.....	168.0	168.3	152.2	December.....	162.9	181.8	144.9
February.....	168.0	167.8	150.7	1930:			
March.....	166.8	167.1	150.7	January.....	162.9	183.6	138.9
April.....	167.2	170.3	147.8	February.....	161.6	183.1	138.5
May.....	168.3	175.4	147.3	March.....	160.9	183.0	137.6
June.....	169.8	177.7	146.1	April.....	160.3	183.3	138.9
July.....	169.3	184.4	147.1	May.....	159.8	181.5	137.0
August.....	168.2	189.5	148.3	June.....	160.1	179.9	133.7
September.....	166.7	195.8	151.2				

Index Numbers of Retail Prices of Food in the United States

IN TABLE 4 index numbers are given which show the changes in the retail prices of specified food articles, by years, for 1913 and 1920 to 1929,² by months for 1929 and for January through June, 1930. These index numbers, or relative prices, are based on the year 1913 as 100, and are computed by dividing the average price of each commodity for each month and each year by the average price of that commodity for 1913. These figures must be used with caution. For example, the relative price of sirloin steak for the year 1929 was 196.9, which means that the average money price for the year 1929 was 96.9 per cent higher than the average money price for the year 1913. As compared with the relative price, 188.2 in 1928, the figures for 1929 show an increase of 8.7 points, but an increase of 4.6 per cent in the year.

² For index numbers of each month, January, 1913, to December, 1928, see Bulletin No. 396, pp. 44 to 61; and Bulletin No. 495, pp. 32 to 45.

In the last column of Table 4 are given index numbers showing changes in the retail cost of all articles of food combined. Since January, 1921, these index numbers have been computed from the average prices of the articles of food shown in Tables 1 and 2, weighted according to the average family consumption in 1918. (See March, 1921, issue, p. 25.) Although previous to January, 1921,



the number of food articles has varied, these index numbers have been so computed as to be strictly comparable for the entire period. The index numbers based on the average for the year 1913 as 100 are 150.1 for May, 1930, and 147.9 for June, 1930.

The curve shown in the chart on this page pictures more readily to the eye the changes in the cost of the food budget than do the index numbers given in the table.

TABLE 4.—INDEX NUMBERS OF RETAIL PRICES OF PRINCIPAL ARTICLES OF FOOD BY YEARS, 1913, 1920 TO 1929, AND BY MONTHS FOR 1929 AND 1930

[Average for year 1913=100.0]

Year and month	Sirloin steak	Round steak	Rib roast	Chuck roast	Plate beef	Pork chops	Bacon	Ham	Hens	Milk	Butter	Cheese
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	172.1	177.1	167.7	163.8	151.2	201.4	193.7	206.3	209.9	187.6	183.0	188.2
1921.....	152.8	154.3	147.0	132.5	118.2	166.2	158.2	181.4	186.4	164.0	135.0	153.9
1922.....	147.2	144.8	139.4	123.1	105.8	157.1	147.4	181.4	169.0	147.2	125.1	148.9
1923.....	153.9	150.2	143.4	126.3	106.6	144.8	144.8	169.1	164.3	155.1	144.7	167.0
1924.....	155.9	151.6	145.5	130.0	109.1	146.7	139.6	168.4	165.7	155.1	135.0	156.7
1925.....	159.8	155.6	149.5	135.0	114.1	174.3	173.0	195.5	171.8	157.3	143.1	166.1
1926.....	162.6	159.6	153.0	140.6	120.7	188.1	186.3	213.4	182.2	157.3	138.6	165.6
1927.....	167.7	166.4	158.1	148.1	127.3	175.2	174.8	204.5	173.2	158.4	145.2	170.1
1928.....	188.2	188.3	176.8	174.4	157.0	163.0	163.0	196.7	175.6	159.6	147.5	174.2
1929.....	196.9	199.1	185.4	186.9	172.7	175.7	161.1	204.1	186.4	160.7	143.9	171.9
1929: January.....	190.6	191.0	180.8	181.3	170.2	153.8	159.3	200.0	184.0	160.7	150.7	173.8
February.....	188.2	188.8	178.8	179.4	167.8	157.1	158.2	199.6	186.4	160.7	152.7	172.9
March.....	188.6	189.2	179.3	180.0	167.8	167.5	158.9	201.9	190.1	160.7	152.5	172.9
April.....	192.9	194.6	183.8	184.4	170.2	176.7	160.4	203.3	196.2	159.6	145.7	172.4
May.....	198.4	201.3	187.9	190.0	174.4	179.5	160.7	204.8	198.1	159.6	142.3	171.9
June.....	201.6	205.4	189.9	191.9	176.0	179.0	162.2	205.6	193.9	159.6	140.5	171.9
July.....	206.7	210.8	192.9	195.6	177.7	188.1	164.1	209.7	187.3	160.7	139.4	171.5
August.....	206.3	210.8	191.9	194.4	176.0	192.4	165.6	211.2	185.0	160.7	140.5	171.0
September.....	202.8	206.7	189.4	191.9	175.2	193.8	164.4	209.7	184.0	160.7	143.1	171.9
October.....	198.0	199.6	186.9	187.5	173.6	185.2	161.9	204.8	180.3	161.8	145.4	171.5
November.....	194.1	196.4	183.3	183.8	171.1	170.5	159.3	200.4	177.0	161.8	139.7	171.0
December.....	192.5	194.6	181.8	183.1	170.2	163.3	157.4	198.5	174.2	161.8	134.7	170.6
1930: January.....	192.9	195.5	183.3	184.4	172.7	168.1	157.0	199.3	178.4	159.6	121.9	169.2
February.....	191.3	194.2	181.8	184.4	171.9	167.6	157.8	200.7	179.3	158.4	122.7	167.0
March.....	190.6	192.8	181.3	182.5	170.2	171.9	157.8	201.1	179.8	157.3	121.9	164.7
April.....	190.2	193.3	181.3	182.5	168.6	176.7	157.4	200.4	179.3	157.3	125.6	162.9
May.....	190.2	192.8	179.8	179.4	164.5	171.9	156.7	200.7	175.6	157.3	120.9	162.0
June.....	188.6	191.5	177.3	175.6	160.3	174.3	156.7	200.7	167.6	157.3	113.1	157.9

Year and month	Lard	Eggs	Bread	Flour	Corn meal	Rice	Pota- toes	Sugar	Tea	Coffee	All arti- cles ¹
1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1920.....	186.7	197.4	205.4	245.5	216.7	200.0	370.6	352.7	134.7	157.7	203.4
1921.....	113.9	147.5	176.8	175.8	150.0	109.2	182.4	145.5	128.1	121.8	153.3
1922.....	107.6	128.7	155.4	154.5	130.0	109.2	164.7	132.7	125.2	121.1	141.6
1923.....	112.0	134.8	155.4	142.4	136.7	109.2	170.6	183.6	127.8	126.5	146.2
1924.....	120.3	138.6	157.1	148.5	156.7	116.1	158.8	167.3	131.4	145.3	145.9
1925.....	147.5	151.0	167.9	184.8	180.0	127.6	211.8	130.9	138.8	172.8	157.4
1926.....	138.6	140.6	167.9	181.8	170.0	133.3	288.2	125.5	141.0	171.1	160.6
1927.....	122.2	131.0	166.1	166.7	173.3	123.0	223.5	132.7	142.5	162.1	155.4
1928.....	117.7	134.5	162.5	163.6	176.7	114.9	158.8	129.1	142.3	165.1	154.3
1929.....	115.8	142.0	160.7	154.5	176.7	111.5	188.2	120.0	142.6	164.8	156.7
1929: January.....	117.1	146.7	160.7	154.5	176.7	112.6	135.3	121.8	142.5	166.1	154.6
February.....	116.5	142.3	160.7	154.5	176.7	112.6	135.3	120.0	142.6	166.1	154.4
March.....	116.5	122.0	160.7	154.5	176.7	112.6	135.3	118.2	142.6	166.4	153.0
April.....	117.1	106.4	160.7	154.5	176.7	112.6	135.3	116.4	142.6	166.4	151.6
May.....	116.5	112.2	160.7	151.5	176.7	111.5	158.8	116.4	142.6	166.1	153.3
June.....	115.8	120.0	160.7	148.5	176.7	111.5	182.4	116.4	142.5	165.8	154.8
July.....	115.8	127.8	160.7	151.5	176.7	111.5	229.4	116.4	142.3	165.8	158.5
August.....	116.5	140.0	160.7	157.6	176.7	112.6	235.3	120.0	142.5	165.4	160.2
September.....	117.1	153.6	160.7	160.6	176.7	111.5	229.4	121.8	142.6	165.1	160.8
October.....	115.8	168.1	158.9	157.6	176.7	111.5	223.5	121.8	142.6	164.8	160.5
November.....	113.9	183.5	158.9	157.6	176.7	111.5	223.5	121.8	142.3	162.1	159.7
December.....	111.4	182.0	158.9	154.5	180.0	110.3	223.5	120.0	142.8	155.4	158.0
1930: January.....	108.9	160.6	158.9	154.5	180.0	110.3	229.4	120.0	143.4	147.0	155.4
February.....	108.2	136.8	157.1	154.5	176.7	110.3	229.4	118.2	143.2	143.3	153.0
March.....	107.0	102.3	157.1	151.5	176.7	109.2	229.4	116.4	142.8	140.6	150.1
April.....	106.3	100.0	157.1	148.5	176.7	110.3	241.2	114.5	142.5	138.9	151.2
May.....	105.7	97.7	157.1	145.5	176.7	109.2	252.9	114.5	142.5	137.2	150.1
June.....	105.1	97.4	157.1	145.5	176.7	109.2	247.1	110.9	142.6	136.2	147.9

¹ 22 articles in 1913-1920; 42 articles in 1921-1930.

WHOLESALE AND RETAIL PRICES

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TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES

[Exact comparison of prices in different cities can not be made for some articles, particularly meats and vegetables, owing to differences in trade practices]

Article	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.			Boston, Mass.			Bridgeport, Conn.		
	1929			1930			1929			1929			1929		
	June 15,			June 15,			June 15,			June 15,			June 15,		
	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15
Sirloin steak.....pound..	Cts. 50.3	Cts. 46.5	Cts. 47.0	Cts. 50.4	Cts. 45.6	Cts. 45.3	Cts. 51.8	Cts. 50.0	Cts. 48.9	Cts. 17.50	Cts. 171.9	Cts. 172.9	Cts. 58.8	Cts. 55.3	Cts. 54.5
Round steak.....do.....	45.6	42.5	43.5	47.0	42.3	42.5	44.5	43.8	42.9	61.1	57.4	57.3	53.7	50.0	49.3
Rib roast.....do.....	38.1	32.8	32.8	36.6	35.2	34.5	37.1	33.6	33.3	44.5	42.9	42.0	43.8	39.3	38.9
Chuck roast.....do.....	31.7	27.9	27.0	30.7	27.8	27.1	30.1	29.3	28.9	35.8	33.2	33.6	36.6	31.9	31.7
Plate beef.....do.....	20.8	20.3	19.8	21.2	20.5	19.7	20.6	19.1	19.6	23.5	23.0	22.6	16.9	16.3	14.6
Pork chops.....do.....	34.0	34.0	34.0	37.5	34.5	37.0	34.7	35.1	34.1	40.5	38.1	39.9	40.2	38.8	39.6
Bacon, sliced.....do.....	41.4	38.7	39.0	39.2	38.4	38.5	43.1	39.2	39.4	43.6	40.8	40.2	47.9	47.5	47.9
Ham, sliced.....do.....	56.6	52.0	52.0	56.8	55.5	55.9	53.3	54.4	54.4	59.2	57.1	57.1	58.0	55.4	55.3
Lamb, leg of.....do.....	42.0	35.8	38.0	39.1	35.8	37.1	41.9	37.8	38.3	41.4	35.3	39.2	42.3	36.4	37.2
Hens.....do.....	37.3	34.5	34.7	42.6	40.1	37.6	35.5	32.8	30.9	44.4	39.9	39.2	45.7	40.6	37.4
Salmon, red, canned.....pound..	34.0	33.4	33.4	28.3	27.8	28.3	32.6	32.5	32.5	30.9	31.1	31.2	30.3	31.3	31.4
Milk, fresh.....quart.....	16.5	16.0	16.0	14.0	14.0	14.0	16.7	17.0	17.0	14.5	15.5	15.2	16.0	16.0	16.0
Milk, evaporated.....16-ounce can..	13.2	10.9	10.8	10.3	10.0	9.6	11.9	10.9	10.6	11.3	11.3	10.7	10.9	10.3	10.2
Butter.....pound.....	57.2	50.9	47.8	56.9	50.3	48.1	55.6	51.6	48.9	55.6	48.3	45.8	54.8	47.1	43.0
Oleomargarine (all butter substitutes).....pound..	28.6	26.7	26.4	28.2	27.6	27.6	31.8	29.1	27.1	29.0	27.9	27.9	25.8	25.6	25.6
Cheese.....do.....	36.4	32.7	32.3	35.8	35.0	32.5	37.2	33.0	31.4	40.4	37.4	37.8	43.5	40.2	40.6
Lard.....do.....	17.7	16.3	16.3	16.4	15.1	14.8	18.0	16.4	16.3	18.2	16.9	16.7	17.5	16.0	15.8
Vegetable lard substitute.....pound..	22.8	20.3	20.3	23.3	22.7	23.0	21.4	21.5	21.5	25.5	25.8	25.7	25.4	25.3	25.2
Eggs, strictly fresh.....dozen.....	39.8	33.4	33.6	40.9	31.4	32.4	38.6	32.2	32.3	55.3	47.7	47.8	51.5	46.2	47.3
Bread.....pound.....	10.6	9.9	9.8	8.5	8.5	8.5	9.9	9.7	9.7	8.7	8.8	8.8	8.7	8.7	8.6
Flour.....do.....	6.4	5.8	5.6	4.6	4.5	4.4	6.3	5.9	5.9	5.3	5.1	5.1	5.0	4.9	4.9
Corn meal.....do.....	4.4	4.1	4.1	4.1	3.9	3.9	4.1	4.1	4.2	6.9	7.2	7.1	7.1	7.0	7.0
Roller oats.....do.....	9.5	8.9	8.9	8.1	8.2	8.2	9.7	9.6	10.0	8.9	8.2	8.3	8.3	8.4	8.5
Corn flakes.....do.....	9.7	9.7	9.7	8.8	8.8	8.8	9.8	9.5	9.6	9.4	9.2	9.1	9.3	9.2	9.2
Wheat cereal.....8-ounce package..	27.1	27.0	28.0	24.4	23.9	23.8	27.1	27.3	27.5	25.2	25.1	25.4	24.4	24.6	24.9
Macaroni.....pound.....	21.5	20.4	20.6	19.0	19.0	19.0	18.3	17.6	17.4	20.9	21.7	21.7	22.2	21.1	21.1
Rice.....do.....	9.6	8.1	8.2	9.0	9.0	9.3	8.7	8.8	8.8	10.5	10.4	10.4	10.0	9.3	9.4
Beans, navy.....do.....	16.4	13.6	13.4	13.7	10.9	10.7	15.1	12.3	12.2	13.4	12.3	12.2	14.3	11.8	11.7
Potatoes.....do.....	3.6	4.5	4.3	3.0	4.3	4.1	4.4	4.9	4.9	2.7	4.0	3.9	3.0	3.5	3.7
Onions.....do.....	8.6	7.1	7.9	7.4	6.2	6.3	7.6	6.3	5.8	7.4	5.9	6.6	7.1	5.7	6.0
Cabbage.....do.....	4.4	6.6	3.6	4.2	6.8	5.5	4.3	6.6	5.0	5.6	8.1	6.9	5.3	8.5	6.4
Pork and beans.....No. 2 can.....	12.1	9.6	9.5	11.0	10.5	10.4	11.7	10.6	10.6	13.2	12.8	12.8	11.9	10.8	10.7
Corn, canned.....do.....	17.9	16.3	16.1	16.9	16.6	16.6	15.6	16.2	17.2	17.0	16.9	18.2	17.0	16.9	16.9
Peas, canned.....do.....	18.8	18.8	18.3	15.4	14.7	14.8	18.9	19.9	19.7	19.8	19.0	18.8	19.4	17.5	17.5
Tomatoes, canned.....No. 2 can.....	13.4	11.8	11.5	12.3	10.7	10.8	13.4	11.3	11.1	13.8	14.8	15.1	14.1	13.7	13.8
Sugar, granulated.....pound.....	7.0	6.5	6.6	5.4	5.3	5.2	6.6	6.4	6.3	6.3	6.2	6.1	6.3	5.9	5.9
Tea.....do.....	105.3	96.5	96.1	73.2	70.9	70.6	96.2	92.7	92.7	75.7	80.1	80.3	57.2	56.1	55.2
Coffee.....do.....	51.7	40.0	39.5	45.3	37.9	38.4	52.1	43.3	43.3	54.0	44.3	43.7	47.5	36.4	37.0
Prunes.....do.....	15.6	18.2	19.2	12.2	15.4	15.8	16.9	20.0	20.1	14.0	17.1	16.1	15.0	17.4	17.2
Raisins.....do.....	13.5	13.9	13.9	10.6	11.1	11.0	12.4	12.3	12.0	10.7	11.5	11.4	11.9	11.9	11.8
Bananas.....dozen.....	26.7	28.1	28.6	24.0	23.1	23.6	36.3	33.8	35.7	42.5	38.0	36.0	32.5	32.8	31.6
Oranges.....do.....	48.5	56.1	55.2	47.5	68.6	65.4	45.2	61.6	60.1	49.9	71.6	66.3	54.6	64.5	75.1

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Buffalo, N. Y.			Butte, Mont.			Charleston, S. C.			Chicago, Ill.			Cincinnati, Ohio		
	1929		1930	1929		1930	1929		1930	1929		1930	1929		1930
	June 15,	May 15		June 15,	May 15		June 15,	May 15		June 15,	May 15		June 15,	May 15	
Sirloin steak.....pound..	Cts. 51.0	Cts. 48.0	Cts. 48.2	Cts. 40.8	Cts. 38.3	Cts. 37.5	Cts. 40.0	Cts. 38.8	Cts. 38.8	Cts. 54.1	Cts. 52.6	Cts. 52.0	Cts. 48.7	Cts. 45.8	Cts. 44.8
Round steak.....do.....	44.8	41.9	41.7	39.4	36.4	35.9	38.8	37.7	37.7	46.7	44.3	44.2	45.8	42.4	41.8
Rib roast.....do.....	37.0	34.5	34.0	35.0	33.1	32.0	33.3	30.6	31.2	40.8	39.4	38.5	38.6	37.8	37.5
Chuck roast.....do.....	31.6	28.7	28.6	29.2	27.5	26.9	27.9	24.6	24.4	33.4	32.5	31.3	29.4	27.9	27.4
Plate beef.....do.....	20.5	17.8	17.3	19.5	18.4	17.8	21.3	19.6	19.6	20.7	19.8	19.5	23.9	22.2	20.9
Pork chops.....do.....	41.1	37.8	39.4	37.5	35.6	35.8	35.2	35.2	35.2	37.0	35.1	35.3	35.9	34.4	34.7
Bacon, sliced.....do.....	40.0	39.3	39.5	50.0	48.7	47.3	36.9	37.1	36.8	48.5	46.9	46.8	39.7	38.9	38.7
Ham, sliced.....do.....	54.6	51.3	51.9	55.8	55.3	55.7	47.1	47.1	47.5	54.3	55.5	55.9	55.3	52.5	53.1
Lamb, leg of.....do.....	38.2	32.1	33.9	43.6	37.3	35.8	46.6	43.3	42.0	42.0	35.8	37.1	43.5	37.8	38.3
Hens.....do.....	42.8	37.6	36.7	37.0	35.8	32.6	43.2	38.0	37.9	43.2	38.7	37.0	43.5	38.0	36.9
Salmon, red, canned.....pound..	29.6	29.5	29.5	32.0	32.8	31.6	28.6	30.7	30.7	33.4	33.4	33.4	29.1	30.7	30.8
Milk, fresh.....quart.....	14.0	14.0	14.0	14.0	14.0	14.0	19.0	18.3	18.3	14.0	14.0	14.0	14.0	14.0	14.0
Milk, evaporated.....16-ounce can..	10.7	9.9	9.8	10.6	10.1	10.0	10.7	10.0	10.0	10.7	10.0	10.0	10.8	10.2	10.2
Butter.....pound.....	52.9	45.8	42.2	52.5	44.3	40.1	52.4	46.9	44.3	51.0	43.5	40.7	54.7	45.9	43.3
Oleomargarine (all butter substitutes).....pound..	26.1	25.9	25.3	---	---	---	28.4	27.3	27.2	26.6	24.8	25.0	27.7	26.3	25.9
Cheese.....do.....	38.9	36.8	37.1	37.5	35.8	35.8	34.6	32.8	31.5	41.8	40.3	39.4	38.9	37.8	37.2
Lard.....do.....	17.3	15.7	15.8	21.6	20.9	20.0	19.1	18.3	18.3	18.7	17.0	16.6	16.8	16.2	16.1
Vegetable lard substitute.....pound..	24.8	24.4	24.4	30.7	29.8	29.8	21.5	21.1	21.0	25.9	25.5	25.4	25.4	25.8	25.8
Eggs, strictly fresh.....dozen.....	42.3	36.9	35.7	45.0	39.0	39.0	40.9	33.8	32.6	43.6	35.0	34.7	38.0	29.5	30.8
Bread.....pound.....	8.3	8.1	8.1	9.8	9.7	9.7	11.0	10.9	10.9	9.9	9.4	9.4	8.7	8.7	8.7
Flour.....do.....	4.4	4.3	4.3	4.8	4.5	4.4	6.4	6.3	6.3	4.4	4.2	4.2	5.3	5.1	5.1
Corn meal.....do.....	5.1	5.0	5.0	6.4	6.2	6.4	4.0	4.1	4.1	6.6	6.9	6.8	4.6	4.9	4.8
Rollod oats.....do.....	8.6	8.4	8.4	8.1	8.3	8.6	9.3	9.2	9.3	8.3	8.1	8.1	8.9	9.0	8.9
Corn flakes.....8-ounce package..	9.2	8.9	9.0	10.3	10.2	10.2	10.0	10.0	10.0	9.1	9.2	9.2	9.6	9.7	9.7
Wheat cereal.....28-ounce package..	24.9	24.6	24.6	28.0	28.2	28.3	25.0	25.2	25.2	24.7	25.4	25.4	24.9	24.9	24.9
Macaroni.....pound.....	21.4	20.7	21.0	19.9	19.9	19.7	18.6	19.0	18.8	18.7	18.6	18.6	18.4	19.5	19.6
Rice.....do.....	9.2	9.1	9.1	10.6	11.3	11.3	6.6	6.7	6.8	10.5	10.2	10.0	9.4	9.9	9.9
Beans, navy.....do.....	14.7	11.0	10.6	13.4	11.5	11.9	15.1	14.4	13.9	13.9	11.9	11.8	13.7	10.0	10.0
Potatoes.....do.....	3.0	3.9	3.9	3.0	4.0	4.0	2.6	4.2	3.5	3.3	4.5	4.5	3.8	4.5	4.6
Onions.....do.....	7.4	6.7	6.5	8.3	5.9	6.8	8.2	6.5	7.0	6.8	5.9	6.2	6.6	6.7	6.0
Cabbage.....do.....	5.0	8.3	6.0	6.6	9.0	7.3	3.5	5.1	4.2	5.3	7.3	6.5	5.2	7.9	5.9
Pork and beans.....No. 2 can..	10.3	9.8	9.7	13.5	12.7	12.9	11.3	9.8	9.8	12.3	11.7	11.6	11.5	11.1	11.0
Corn, canned.....do.....	16.1	15.3	15.2	14.8	14.3	13.9	15.0	14.8	14.8	15.7	15.2	15.1	15.6	15.9	15.9
Peas, canned.....do.....	15.6	15.4	15.4	14.2	14.6	14.2	16.3	16.4	16.5	16.4	16.0	15.8	16.5	16.9	16.8
Tomatoes, canned.....No. 2 can..	13.9	13.5	13.1	12.4	13.7	13.7	11.7	10.3	10.1	14.4	14.0	14.0	14.0	13.1	13.0
Sugar, granulated.....pound.....	6.1	6.0	5.8	7.5	7.5	7.1	6.1	6.1	5.9	6.2	6.4	6.2	6.5	6.7	6.5
Tea.....do.....	68.3	67.5	66.5	82.6	80.8	80.8	84.0	85.4	84.9	70.0	72.6	74.2	79.3	80.0	80.0
Coffee.....do.....	47.8	38.8	38.5	55.1	47.1	46.5	46.7	39.5	39.0	47.8	40.9	39.8	46.2	38.3	36.8
Prunes.....do.....	14.4	17.2	17.7	14.2	18.8	17.9	12.5	16.3	14.9	16.5	17.5	17.5	14.9	18.0	17.9
Raisins.....do.....	11.1	12.0	11.7	13.2	13.2	13.0	10.0	11.1	11.3	11.2	12.2	11.9	12.0	12.1	12.1
Bananas.....dozen.....	38.9	38.3	39.1	13.0	13.3	12.7	25.0	25.0	27.2	37.8	38.4	38.8	36.5	37.2	37.2
Oranges.....do.....	50.6	67.0	73.4	46.6	64.1	62.1	34.8	76.3	69.9	45.4	69.6	68.9	38.9	69.4	68.6

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Cleveland, Ohio			Columbus, Ohio			Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
	1929			1929			1929			1929			1929		
	1930			1930			1930			1930			1930		
	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15
Sirloin steak.....pound..	Cts. 50.9	Cts. 44.1	Cts. 44.0	Cts. 50.1	Cts. 47.3	Cts. 47.2	Cts. 47.8	Cts. 47.5	Cts. 47.2	Cts. 44.2	Cts. 39.1	Cts. 39.2	Cts. 52.9	Cts. 48.0	Cts. 47.4
Round steak.....do.....	44.8	39.3	39.4	45.6	42.7	42.8	46.3	46.2	45.5	40.4	36.3	36.4	45.4	39.3	38.5
Rib roast.....do.....	36.2	33.1	33.0	39.8	37.9	39.2	38.3	37.0	37.0	33.0	29.8	29.9	39.8	31.7	34.3
Chuck roast.....do.....	32.5	29.0	28.9	32.3	30.7	31.0	31.8	30.1	29.8	27.5	25.2	25.3	32.3	28.0	27.2
Plate beef.....do.....	21.1	19.4	18.6	24.0	23.3	22.8	25.5	24.4	24.1	18.8	17.0	16.5	22.1	18.6	18.1
Pork chops.....do.....	38.8	36.1	36.5	36.0	35.8	35.0	37.0	35.3	35.3	35.9	33.7	34.7	40.7	37.4	37.1
Bacon, sliced.....do.....	41.9	40.6	40.9	44.5	44.3	43.7	44.5	40.9	40.2	41.9	40.2	40.3	44.5	41.7	42.1
Ham, sliced.....do.....	56.0	53.0	53.3	54.1	53.3	52.9	58.0	55.4	55.0	55.5	53.0	53.3	60.6	56.2	55.2
Lamb, leg of.....do.....	40.6	33.5	34.1	47.8	40.4	44.0	46.3	40.1	40.1	37.4	32.1	35.0	41.8	34.1	32.9
Hens.....do.....	41.2	36.6	34.2	42.8	39.4	37.0	35.9	34.3	32.7	34.6	31.0	29.3	44.4	38.0	36.5
Salmon, red, canned															
.....pound.....	31.9	32.3	32.3	31.8	30.9	30.4	32.8	33.5	33.5	31.5	33.7	33.4	30.1	31.3	31.1
Milk, fresh.....quart.....	12.0	12.0	12.0	12.0	12.0	12.0	13.0	13.0	13.0	12.0	11.3	11.3	14.0	13.0	13.0
Milk, evaporated															
.....16-ounce can.....	11.0	9.8	9.8	11.2	10.6	10.2	13.0	11.9	11.7	10.1	9.9	9.9	10.5	9.8	9.8
Butter.....pound.....	54.8	46.7	44.3	53.7	45.0	42.3	55.9	48.8	46.8	49.1	41.3	37.6	54.2	45.3	43.0
Oleomargarine (all															
butter substitutes)															
.....pound.....	29.0	27.0	27.2	27.2	25.9	25.6	28.4	27.2	27.4	24.0	23.0	23.0	25.5	23.9	23.8
Cheese.....do.....	40.3	39.9	38.9	37.8	37.2	37.2	37.8	35.4	33.1	38.8	36.9	36.3	39.5	35.5	34.7
Lard.....do.....	20.0	17.7	17.5	15.5	14.3	13.9	20.8	21.0	18.1	18.4	16.3	16.1	18.0	15.9	16.1
Vegetable lard substitute															
.....pound.....	26.4	26.1	26.2	26.7	26.8	26.4	23.6	20.5	21.4	21.2	20.3	20.2	26.2	25.8	25.7
Eggs, strictly fresh															
.....dozen.....	42.8	32.8	33.6	37.1	27.7	27.3	36.3	31.0	29.8	34.9	28.3	28.6	42.6	32.6	32.3
Bread.....pound.....	7.8	7.8	7.8	7.7	7.7	7.7	9.1	7.6	7.7	7.6	7.6	7.6	8.1	8.0	8.0
Flour.....do.....	5.0	4.9	4.8	4.7	4.6	4.5	4.9	5.0	4.9	3.7	3.8	3.8	4.7	4.5	4.4
Corn meal.....do.....	5.7	5.1	5.0	4.2	4.0	4.2	4.4	4.6	4.6	4.5	4.6	4.6	6.1	6.1	5.8
Roller oats.....do.....	9.1	9.3	9.1	8.9	9.1	9.1	10.0	9.8	9.8	7.5	7.5	7.5	9.1	8.5	8.4
Corn flakes															
.....8-ounce package.....	9.8	9.9	9.9	10.0	9.6	9.6	9.8	9.6	9.6	9.9	9.7	9.8	9.7	9.6	9.5
Wheat cereal															
.....28-ounce package.....	25.7	25.2	25.3	26.1	26.3	26.1	27.3	27.0	27.0	24.6	24.7	24.7	26.6	26.7	26.0
Macaroni.....pound.....	20.9	18.8	18.8	20.0	19.4	19.6	21.5	20.4	20.5	19.6	19.6	19.5	21.0	19.2	19.0
Rice.....do.....	10.4	9.9	10.0	11.2	11.1	11.0	11.2	10.5	10.3	8.8	8.6	8.8	11.4	10.4	10.0
Beans, navy.....do.....	15.0	11.0	11.0	14.1	10.2	10.5	15.9	14.2	13.9	13.0	10.3	10.4	13.7	10.9	10.5
Potatoes.....do.....	3.8	4.6	4.5	2.2	4.3	4.6	4.8	5.7	5.0	3.2	4.7	4.7	2.9	3.7	4.1
Onions.....do.....	6.6	6.1	5.8	8.5	7.1	6.4	6.9	7.6	6.5	6.8	4.9	5.4	6.1	5.8	5.6
Cabbage.....do.....	5.4	7.6	6.1	5.6	9.4	7.0	4.7	6.7	5.7	4.6	6.6	5.1	5.6	7.7	5.6
Pork and beans															
.....No. 2 can.....	12.5	11.3	11.3	11.4	10.9	10.9	13.3	11.5	10.8	11.7	10.9	10.5	11.9	10.7	10.4
Corn, canned.....do.....	16.9	16.3	16.4	14.3	15.1	15.1	18.0	17.0	16.9	14.4	14.3	14.4	15.5	15.3	14.3
Peas, canned.....do.....	17.3	16.8	16.8	15.3	15.2	15.7	21.8	21.5	21.5	15.4	15.3	15.3	15.8	14.9	14.6
Tomatoes, canned															
.....No. 2 can.....	14.4	13.8	13.9	13.7	13.4	13.6	14.0	13.0	13.0	12.3	13.6	13.6	13.5	12.5	12.5
Sugar, granulated															
.....pound.....	7.1	7.0	6.7	6.9	7.0	6.9	7.0	6.8	6.6	7.1	6.9	6.5	6.6	6.5	6.2
Tea.....do.....	81.9	83.2	83.8	87.8	89.4	89.4	104.3	98.8	99.9	69.6	71.0	72.0	72.6	79.0	77.1
Coffee.....do.....	52.2	42.3	42.2	49.3	42.5	42.4	57.8	49.5	49.3	49.6	43.3	43.8	48.9	40.4	38.6
Prunes.....do.....	14.1	18.2	17.6	15.8	18.1	18.5	18.1	20.7	19.8	15.9	17.0	16.9	16.3	17.4	16.9
Raisins.....do.....	11.7	11.6	12.0	11.2	12.0	12.0	13.0	13.5	13.0	11.2	12.1	11.9	11.6	12.2	12.2
Bananas.....dozen.....	9.3	8.8	8.9	39.5	36.3	36.3	35.0	33.3	33.3	9.9	8.2	9.2	33.8	31.4	31.4
Oranges.....do.....	51.0	67.0	75.0	41.8	69.6	69.2	48.8	57.9	59.4	37.6	68.8	61.5	43.9	64.5	63.1

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.			Jacksonville, Fla.			Kansas City, Mo.		
	1929			1929			1929			1929			1929		
	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15
Sirloin steak, pound	69.7 ¹	66.8 ¹	66.7	43.6	43.5	42.0	50.6	46.1	46.1	40.2	40.9	40.5	49.8	47.1	46.9
Round steak, do	56.1	53.5	53.6	43.2	41.5	40.5	48.8	44.6	44.4	36.5	36.4	36.4	45.0	42.7	42.0
Rib roast, do	38.8	37.3	37.5	33.2	34.5	34.0	35.9	33.8	33.5	32.2	31.1	30.9	36.2	34.2	33.1
Chuck roast, do	32.2	29.8	29.7	27.0	26.8	26.0	32.5	30.4	29.8	26.3	25.0	24.8	28.3	27.4	27.3
Plate beef, do	17.6	15.7	16.2	24.2	23.3	23.1	21.7	20.4	19.5	16.9	16.8	18.1	20.3	19.9	19.2
Pork chops, do	37.4	37.7	37.7	33.6	33.5	33.8	36.2	34.9	35.6	32.0	33.5	33.6	35.1	35.6	34.9
Bacon, sliced, do	38.3	37.9	35.4	39.0	39.1	38.5	41.2	41.1	40.8	38.3	36.4	36.0	42.2	40.5	40.9
Ham, sliced, do	54.6	53.2	54.0	50.0	50.5	51.0	57.3	54.9	54.6	50.0	50.0	50.5	53.2	51.8	51.3
Lamb, leg of, do	42.5	36.2	38.7	34.2	35.8	35.0	42.5	38.1	38.1	41.3	36.4	37.5	37.9	33.8	34.8
Hens, do	49.7	42.5	41.5	40.5	36.5	34.3	43.6	39.0	38.2	36.9	35.1	32.4	36.3	33.4	32.8
Salmon, red, canned pound	32.4	32.8	32.1	29.5	29.5	30.2	32.0	32.4	32.4	30.0	31.4	30.9	33.4	34.9	34.9
Milk, fresh, quart	15.0	15.0	15.0	15.0	15.0	15.0	12.0	12.0	12.0	20.3	18.0	18.0	13.0	13.0	13.0
Milk, evaporated 16-ounce can	11.9	11.0	10.9	10.3	9.7	9.6	10.2	9.9	9.9	10.9	10.3	10.3	10.8	10.2	10.2
Butter, pound	55.3	45.2	43.3	52.8	46.1	43.2	54.3	46.1	43.5	55.9	48.1	44.5	51.4	43.3	40.0
Oleomargarine (all butter substitutes) pound	26.3	26.0	26.2	24.9	23.2	22.9	28.5	27.1	26.9	28.3	24.1	23.8	25.3	23.5	22.8
Cheese, do	40.8	39.1	38.8	32.2	29.5	28.5	40.8	38.4	38.5	34.1	32.0	30.8	37.1	34.7	32.2
Lard, do	17.5	15.7	15.7	20.6	19.0	18.4	16.0	15.0	14.9	19.4	17.5	17.3	18.0	16.5	16.3
Vegetable lard substitute, pound	26.7	26.3	26.2	16.5	15.8	15.9	26.9	26.7	26.8	22.4	20.3	20.2	25.6	25.6	25.6
Eggs, strictly fresh, dozen	50.6	41.5	44.1	35.5	26.1	29.3	36.7	29.7	28.2	39.0	32.1	31.9	36.9	30.0	29.8
Bread, potind	8.5	8.5	8.5	8.4	8.2	8.2	8.0	8.0	8.0	10.0	10.2	10.2	9.2	8.8	8.7
Flour, do	5.4	5.3	5.3	4.7	4.6	4.5	5.1	4.9	4.8	5.9	5.4	5.4	4.5	4.7	4.6
Corn meal, do	6.5	6.3	6.3	3.8	4.3	4.4	4.3	4.5	4.5	4.3	4.0	4.0	5.3	5.3	5.3
Rolled oats, do	9.5	9.4	9.5	8.5	8.0	8.0	8.7	8.8	8.5	9.3	9.3	9.3	8.8	9.1	8.9
Corn flakes 8-ounce package	9.8	9.5	9.5	9.0	9.3	9.1	9.5	9.5	9.4	9.8	9.5	9.6	9.6	9.5	9.6
Wheat cereal 28-ounce package	24.7	24.9	24.8	25.3	25.4	25.2	25.3	26.1	26.1	25.2	26.1	26.3	26.8	27.2	27.0
Macaroni, pound	23.8	24.2	24.7	18.1	17.8	17.9	18.3	19.2	19.2	19.3	19.1	19.1	19.9	20.4	20.4
Rice, do	10.5	10.7	10.1	7.1	7.3	7.4	10.4	11.1	11.0	7.5	8.1	8.4	9.2	9.2	9.1
Beans, navy, do	13.8	12.8	12.5	14.8	13.0	12.8	14.6	10.5	10.1	14.5	12.8	12.3	14.4	10.8	10.8
Potatoes, do	2.5	3.6	3.7	4.5	5.0	5.0	2.5	4.5	4.5	3.7	4.2	4.3	2.8	4.4	4.1
Onions, do	7.2	5.8	6.6	5.6	5.3	4.7	7.8	6.9	6.5	7.9	6.6	6.4	7.6	6.9	6.8
Cabbage, do	4.9	8.4	6.2	4.8	5.7	3.8	5.0	8.3	6.0	3.8	4.8	4.8	3.8	7.4	3.2
Pork and beans No. 2 can	12.6	12.3	11.8	10.9	9.9	9.8	11.1	11.0	11.2	10.6	10.1	9.9	12.4	11.9	11.9
Corn, canned, do	16.0	15.9	16.0	14.1	13.5	13.4	14.0	14.0	14.0	17.0	16.1	16.3	14.7	14.9	14.9
Peas, canned, do	18.1	18.1	17.5	15.7	14.4	14.5	14.7	15.0	15.2	17.7	18.5	17.9	15.5	15.9	15.9
Tomatoes, canned No. 2 can	14.0	12.7	12.9	11.7	10.2	10.1	14.2	13.4	13.5	11.4	10.0	9.8	13.9	13.0	12.4
Sugar, granulated pound	6.3	6.0	6.1	6.4	6.1	6.0	7.0	6.7	6.5	6.3	6.4	6.2	6.9	6.9	6.7
Tea, do	59.1	60.0	60.0	86.8	87.7	88.6	89.8	93.3	92.6	96.6	91.3	90.6	90.7	89.0	89.2
Coffee, do	50.3	43.5	42.8	44.8	34.7	34.4	48.1	40.4	39.9	47.5	39.9	39.5	52.2	42.4	42.3
Prunes, do	13.5	16.1	15.3	14.5	17.0	17.0	16.0	21.0	19.5	14.1	18.8	18.7	15.1	19.1	18.1
Raisins, do	12.0	12.0	12.8	10.4	10.1	10.1	13.8	13.5	13.4	11.2	11.7	12.0	12.3	13.2	13.4
Bananas, dozen	8.8	7.7	8.5	25.0	23.8	25.4	31.9	30.6	30.6	25.7	27.2	27.8	9.5	11.1	9.5
Oranges, do	46.5	76.3	68.8	36.5	54.6	55.6	46.5	64.6	65.3	33.3	54.2	79.0	36.2	68.8	68.5

¹ Per pound.² The steak for which prices are quoted is called "rump" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Little Rock, Ark.			Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.			Memphis, Tenn.		
	1929			1929			1929			1929			1929		
	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15
Sirloin steak—pound	Cts. 48.0	Cts. 45.5	Cts. 45.5	Cts. 45.3	Cts. 43.9	Cts. 44.9	Cts. 48.9	Cts. 45.0	Cts. 43.6	Cts. 66.0	Cts. 62.5	Cts. 62.7	Cts. 48.5	Cts. 46.1	Cts. 44.4
Round steak—do	44.1	42.1	41.6	38.2	38.1	37.8	43.2	38.9	38.9	53.8	51.9	51.6	46.4	43.6	42.2
Rib roast—do	37.8	35.7	35.4	35.4	35.0	35.3	36.4	32.7	32.5	35.6	34.3	34.7	34.4	34.0	32.6
Chuck roast—do	28.9	29.4	28.7	26.6	26.7	25.7	29.1	26.4	26.1	30.6	29.5	30.0	29.8	28.5	26.9
Plate beef—do	23.1	23.2	22.4	18.0	17.0	16.8	23.5	22.5	21.5	23.9	21.2	21.1	21.2	22.0	20.2
Pork chops—do	34.1	34.2	34.9	44.0	41.8	42.3	33.5	31.3	31.8	36.8	35.4	36.5	33.6	32.4	33.3
Bacon, sliced—do	45.4	41.1	41.5	48.8	46.3	47.0	44.8	42.0	41.1	36.9	36.3	37.5	36.0	34.6	34.6
Ham, sliced—do	52.5	51.5	50.2	67.4	66.7	67.8	50.9	49.5	49.5	49.1	46.4	47.3	53.8	52.9	52.9
Lamb, leg of—do	40.0	37.4	38.6	39.4	33.2	32.9	42.7	37.7	37.7	40.2	35.7	36.8	39.7	35.1	35.5
Hens—do	33.5	30.4	29.8	47.3	43.2	41.6	40.3	37.3	36.1	44.4	41.4	41.2	36.2	32.0	30.7
Salmon, red, canned—pound	30.5	31.9	31.7	29.6	30.8	30.7	29.1	30.5	30.0	29.9	31.2	31.3	35.6	33.8	33.5
Milk, fresh—quart	15.0	14.0	14.0	15.0	15.0	15.0	13.0	12.0	12.0	14.7	15.0	15.0	15.0	15.0	15.0
Milk, evaporated—16-ounce can	11.6	10.3	10.3	9.9	9.2	9.4	11.4	10.5	10.5	12.0	11.4	11.2	11.3	10.0	10.0
Butter—pound	54.5	48.8	46.6	54.2	46.1	42.1	53.9	46.6	43.2	54.9	47.3	44.7	54.0	47.7	44.6
Oleomargarine (all butter substitutes)—pound	27.1	24.9	24.5	25.2	24.0	23.8	26.0	26.3	26.1	28.1	26.6	26.3	24.6	23.4	22.1
Cheese—do	36.2	34.1	33.2	38.4	36.7	35.7	37.4	36.7	34.4	38.4	35.7	35.7	34.7	31.7	31.1
Lard—do	19.6	18.9	18.2	19.9	16.8	17.0	17.1	16.0	16.0	17.7	16.4	16.4	15.7	14.5	14.5
Vegetable lard substitute—pound	21.1	21.1	21.1	25.0	22.6	23.1	26.3	26.2	26.2	26.2	26.4	26.1	22.1	22.0	21.8
Eggs, strictly fresh—dozen	36.4	29.0	27.9	43.5	34.7	32.0	28.6	28.8	28.5	51.4	39.7	41.3	37.0	29.3	29.6
Bread—pound	9.5	9.4	9.4	8.6	8.6	8.6	9.4	8.6	8.6	8.1	8.1	8.1	9.3	9.0	9.0
Flour—do	5.9	5.7	5.7	4.7	4.6	4.6	5.5	5.2	5.1	4.8	4.9	4.9	5.7	5.7	5.6
Corn meal—do	4.1	4.1	4.3	5.7	5.6	5.7	4.1	4.1	4.0	5.3	5.5	5.4	4.0	4.1	4.1
Rollod oats—do	10.3	10.2	10.2	10.0	9.6	9.5	8.5	8.9	9.0	8.4	8.2	8.0	9.0	8.6	8.7
Corn flakes—8-ounce package	9.8	9.8	9.8	9.5	9.4	9.3	9.5	9.5	9.3	9.1	9.2	9.2	9.7	9.8	9.8
Wheat cereal—28-ounce package	27.3	26.7	27.0	25.0	24.9	24.9	26.7	27.4	27.6	25.6	25.6	25.6	25.8	27.0	26.6
Macaroni—pound	20.2	20.2	20.5	17.9	17.5	17.5	18.7	18.4	18.2	23.2	23.4	23.7	19.8	19.7	19.6
Rice—do	8.2	8.4	8.2	9.8	9.1	9.4	10.5	10.2	10.2	8.7	9.1	9.3	8.3	8.7	8.5
Beans, navy—do	14.6	13.6	13.8	12.8	12.0	12.0	14.5	10.2	10.4	13.4	11.9	11.7	14.7	12.5	11.8
Potatoes—do	2.9	4.5	3.3	3.5	4.4	3.5	4.0	4.6	4.5	2.3	3.7	3.5	3.9	4.8	4.7
Onions—do	7.6	6.5	6.2	4.8	4.6	4.4	7.0	6.7	6.0	7.8	5.8	6.7	6.3	5.5	5.1
Cabbage—do	3.8	6.0	4.9	3.9	4.2	3.8	4.1	8.5	5.3	5.2	8.9	7.8	4.0	5.9	4.4
Pork and beans—No. 2 can	12.6	10.9	10.9	11.8	10.7	10.6	11.3	10.2	10.2	13.4	14.2	14.1	11.8	11.1	10.9
Corn, canned—do	15.8	17.0	17.0	15.9	14.4	14.2	14.9	14.9	15.1	16.4	15.9	15.9	14.7	14.5	14.5
Peas, canned—do	18.2	19.4	19.4	16.6	15.2	15.7	15.1	15.0	15.0	17.8	17.6	17.6	16.2	15.8	15.7
Tomatoes, canned—No. 2 can	13.2	13.3	13.2	15.3	14.3	14.0	13.5	12.2	12.2	14.2	13.1	12.8	12.0	11.0	10.7
Sugar, granulated—pound	7.0	7.4	7.0	6.1	6.0	5.8	7.0	7.0	6.8	6.5	6.4	6.3	6.5	6.5	6.2
Tea—do	106.7	105.4	105.4	74.6	73.4	73.3	92.0	90.8	90.8	63.6	61.1	61.1	96.0	94.5	94.5
Coffee—do	54.5	45.9	45.6	53.7	44.4	43.8	48.8	42.5	43.5	50.0	40.7	40.9	49.0	43.3	42.7
Prunes—do	16.2	19.6	19.6	14.1	15.2	13.7	14.7	20.1	20.9	13.9	15.8	15.0	14.2	16.3	15.8
Raisins—do	14.0	13.8	13.7	10.4	10.0	9.9	11.6	13.0	12.8	10.8	11.5	11.6	12.4	13.8	13.8
Bananas—dozen	8.1	5.3	5.7	8.6	8.2	7.4	9.8	9.1	9.1	8.3	6.7	6.8	7.9	7.0	7.6
Oranges—do	45.5	65.0	66.5	41.5	46.4	46.6	38.4	60.3	69.2	44.5	70.6	71.1	44.3	64.4	70.3

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most of the other cities included in this report it would be known as "porterhouse" steak.

² Per pound.

³ No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Milwaukee, Wis.			Minneapolis, Minn.			Mobile, Ala.			Newark, N. J.			New Haven, Conn.		
	1929			1929			1929			1929			1929		
	June 15,	1930		June 15,	1930		June 15,	1930		June 15,	1930		June 15,	1930	
		May 15	June 15		May 15	June 15		May 15	June 15		May 15	June 15		May 15	June 15
Sirloin steak.....pound..	Cts. 48.6	Cts. 43.6	Cts. 43.7	Cts. 46.2	Cts. 41.4	Cts. 42.6	Cts. 47.9	Cts. 45.3	Cts. 44.2	Cts. 55.0	Cts. 50.9	Cts. 50.9	Cts. 63.5	Cts. 60.5	Cts. 59.1
Round steak.....do.....	44.4	39.8	39.8	41.1	38.4	38.8	44.1	43.1	42.6	51.5	48.3	47.3	53.2	51.0	50.7
Rib roast.....do.....	35.1	32.3	32.0	35.9	33.4	34.1	37.3	35.3	34.2	40.9	38.8	37.5	43.1	40.5	40.5
Chuck roast.....do.....	32.5	29.4	28.7	31.6	28.5	30.0	29.4	29.8	28.1	33.2	29.1	27.6	34.8	32.2	31.4
Plate beef.....do.....	21.0	18.9	18.2	19.7	18.4	18.8	23.1	22.0	20.3	19.2	18.5	18.1	18.6	18.4	18.8
Pork chops.....do.....	36.6	35.3	35.6	37.3	35.4	36.3	33.1	33.6	33.7	39.7	37.0	38.1	39.3	38.4	38.7
Bacon, sliced.....do.....	43.6	43.8	43.8	46.8	44.6	46.1	37.6	37.6	37.6	43.6	43.0	43.5	44.8	44.0	44.0
Ham, sliced.....do.....	49.4	48.9	48.7	53.9	51.8	52.1	51.1	51.0	51.0	56.3	53.5	53.3	60.6	59.4	60.0
Lamb, leg of.....do.....	42.9	36.7	37.7	37.2	33.6	33.3	43.0	45.0	40.8	41.6	35.6	36.9	42.6	37.1	37.6
Hens.....do.....	38.6	33.5	28.8	38.1	34.9	31.1	36.6	35.3	33.3	43.5	38.9	37.3	46.6	41.2	40.4
Salmon, red, canned.....pound..	36.4	33.9	32.9	35.5	35.4	34.8	29.0	29.7	30.1	29.1	29.5	29.4	31.7	30.8	30.3
Milk, fresh.....quart..	11.0	12.0	11.0	12.0	11.0	11.0	18.0	18.0	18.0	16.0	15.5	15.5	16.0	16.0	16.0
Milk, evaporated.....16-ounce can..	10.8	10.1	10.1	11.7	10.5	10.7	10.6	9.8	9.7	10.5	9.9	9.8	11.6	10.3	10.2
Butter.....pound..	50.5	43.0	40.3	51.0	42.4	39.3	55.6	47.2	44.4	54.9	46.3	43.3	54.8	48.0	45.1
Oleomargarine (all butter substitutes).....pound..	26.6	25.9	25.1	25.4	25.0	25.0	28.2	24.9	24.9	30.2	29.5	29.3	29.0	26.3	25.9
Cheese.....do.....	37.1	34.5	33.6	37.1	32.9	32.5	35.0	33.5	30.5	41.8	38.3	38.6	41.6	40.5	40.1
Lard.....do.....	18.5	17.2	16.9	19.1	17.1	17.4	18.3	16.3	16.3	18.6	17.6	17.6	18.9	18.0	17.8
Vegetable lard substitute.....pound..	26.7	26.3	26.3	26.8	26.3	26.4	19.3	18.7	18.6	25.3	25.0	25.0	25.4	25.6	25.6
Eggs, strictly fresh.....dozen..	38.5	28.0	27.7	36.0	27.7	27.3	36.3	27.3	28.3	48.9	42.1	43.9	53.7	45.6	46.2
Bread.....pound..	8.7	8.1	8.1	9.0	8.8	8.8	10.1	9.9	9.9	8.8	9.0	8.9	8.8	8.7	8.5
Flour.....do.....	4.3	4.2	4.1	4.4	4.4	4.3	5.7	5.6	5.3	4.9	4.7	4.8	4.9	4.8	4.8
Corn meal.....do.....	6.2	6.3	6.3	5.5	5.7	5.7	3.8	3.9	3.9	6.7	6.2	6.6	6.8	6.8	6.5
Rolled oats.....do.....	8.1	8.0	8.0	7.9	7.8	8.0	8.0	7.9	7.9	8.7	8.6	8.5	9.4	8.8	8.7
Corn flakes.....do.....	9.4	9.4	9.4	9.6	9.3	9.3	9.1	8.8	8.8	8.9	8.9	8.8	9.9	9.8	10.0
Wheat cereal.....28-ounce package..	24.7	24.5	24.5	25.4	24.7	24.9	24.2	24.3	24.3	26.2	26.0	25.4	24.4	24.8	24.8
Macaroni.....pound..	17.8	17.3	17.1	17.5	17.4	17.7	20.9	20.5	20.1	21.5	21.3	21.3	22.4	21.6	21.1
Rice.....do.....	10.0	9.8	9.8	10.0	9.5	9.6	7.6	7.8	7.8	9.4	9.5	9.3	10.2	10.3	10.2
Beans, navy.....do.....	14.3	11.1	10.3	14.6	11.5	11.7	14.8	12.1	12.4	14.9	12.0	12.6	14.2	11.5	11.1
Potatoes.....do.....	1.8	4.2	4.3	1.9	3.7	4.2	3.1	4.2	4.2	3.4	4.8	4.4	2.6	3.8	3.7
Onions.....do.....	7.2	6.0	5.9	8.0	6.3	6.1	5.6	4.9	5.3	7.3	6.5	6.0	7.9	7.0	5.9
Cabbage.....do.....	5.2	7.9	5.8	5.0	7.9	5.7	4.4	4.9	4.7	4.8	7.8	6.3	5.9	8.7	7.4
Pork and beans.....No. 2 can..	11.6	10.3	10.2	12.4	11.3	11.6	10.8	9.4	9.5	10.8	10.4	10.3	12.3	11.4	11.5
Corn, canned.....do.....	16.0	15.5	15.5	15.0	13.5	13.5	14.4	14.0	14.3	16.4	15.1	14.8	18.5	18.3	18.5
Peas, canned.....do.....	16.2	16.1	16.0	15.5	14.0	14.1	15.1	15.4	15.0	17.0	15.9	15.9	21.3	19.8	19.9
Tomatoes, canned.....No. 2 can..	14.4	14.0	14.0	14.1	13.6	13.7	11.8	11.0	10.6	12.3	11.2	11.4	14.5	14.2	14.0
Sugar, granulated.....pound..	6.1	6.2	6.1	6.5	6.0	6.1	6.2	6.2	6.1	6.1	6.0	5.9	6.4	6.2	6.0
Tea.....do.....	69.0	67.7	67.2	68.0	69.4	70.2	79.2	79.1	79.1	57.3	58.2	58.2	59.9	61.5	60.4
Coffee.....do.....	46.3	37.7	37.6	53.4	43.5	43.3	50.2	40.8	39.9	48.3	39.9	39.2	51.5	42.2	42.2
Prunes.....do.....	15.0	17.2	16.7	14.9	17.3	17.2	13.3	18.6	17.6	14.0	17.1	16.2	14.8	15.8	16.2
Raisins.....do.....	12.1	12.3	12.3	11.9	12.6	12.5	9.6	11.8	11.6	11.3	11.1	11.4	12.5	11.5	11.8
Bananas.....dozen..	8.9	8.9	9.0	9.5	8.7	9.5	21.7	18.6	18.6	37.5	36.3	37.5	33.1	33.3	33.7
Oranges.....do.....	42.9	60.0	67.6	40.8	64.2	64.7	38.9	51.4	53.9	48.9	68.6	73.4	49.6	78.5	78.8

* Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	New Orleans, La.			New York, N. Y.			Norfolk, Va.			Omaha, Nebr.			Peoria, Ill.		
	1929		1930	1929		1930	1929		1930	1929		1930	1929		1930
	June 15,	May 15		June 15,	May 15		June 15,	May 15		June 15,	May 15		June 15,	May 15	
Sirloin steak.....pound..	Cts. 46.2	Cts. 42.9	Cts. 42.4	Cts. 53.6	Cts. 51.5	Cts. 50.8	Cts. 47.9	Cts. 44.3	Cts. 44.4	Cts. 47.3	Cts. 43.7	Cts. 43.9	Cts. 43.6	Cts. 39.8	Cts. 40.0
Round steak.....do.....	41.3	38.4	38.2	51.9	48.7	48.4	41.8	39.3	39.3	45.6	42.4	42.2	43.6	39.7	39.5
Rib roast.....do.....	37.6	34.8	34.0	44.1	41.2	41.4	39.4	34.4	34.7	33.3	32.1	31.6	32.1	32.2	30.1
Chuck roast.....do.....	27.0	27.1	25.8	31.2	30.0	29.4	30.0	26.1	25.7	30.6	28.1	27.4	29.7	26.5	25.8
Plate beef.....do.....	22.2	21.4	19.9	25.1	24.6	24.0	21.9	20.9	20.9	19.8	18.2	17.9	20.0	19.8	17.8
Pork chops.....do.....	37.0	34.8	35.1	40.5	39.1	39.1	34.8	33.3	33.7	35.2	33.5	33.8	33.8	33.0	33.2
Bacon, sliced.....do.....	42.7	42.5	42.3	45.5	45.0	44.7	41.7	42.9	40.9	44.6	44.3	44.7	42.7	42.1	42.1
Ham, sliced.....do.....	51.3	50.7	50.9	59.0	55.6	55.7	45.9	45.6	44.4	53.8	51.0	51.0	50.5	50.0	49.5
Lamb, leg of.....do.....	39.6	36.5	36.3	40.3	34.5	35.3	42.8	38.3	37.0	39.1	33.9	34.4	46.0	36.9	36.3
Hens.....do.....	39.8	37.3	34.0	44.2	39.4	38.6	39.1	37.4	35.3	36.1	32.5	30.8	37.4	32.9	31.8
Salmon, red, canned.....pound..	35.1	36.3	36.5	31.0	30.5	30.7	32.3	32.9	33.6	34.0	34.1	33.9	32.7	33.2	33.4
Milk, fresh.....quart..	14.0	14.0	14.0	16.0	15.0	15.0	18.0	18.0	18.0	11.3	11.0	11.0	13.0	13.0	13.0
Milk, evaporated.....16-ounce can..	10.2	9.8	9.8	10.4	9.8	9.5	10.8	10.0	9.9	11.1	10.1	10.1	10.6	9.7	9.7
Butter.....pound..	55.3	48.5	45.0	53.8	44.9	42.6	58.0	49.9	47.2	49.0	41.8	38.9	49.1	41.7	38.6
Oleomargarine (all butter substitutes).....pound..	28.3	26.5	26.4	28.2	26.7	26.9	26.4	25.9	25.6	26.3	25.9	25.9	27.7	26.3	25.9
Cheese.....do.....	37.0	33.9	32.0	41.0	38.3	38.5	34.8	33.1	32.6	34.8	32.9	31.8	36.0	33.5	32.4
Lard.....do.....	18.5	17.2	16.5	19.6	17.3	17.4	17.9	16.1	15.6	19.4	17.5	17.4	17.9	16.6	15.9
Vegetable lard substitute.....pound..	19.6	19.9	19.8	25.8	25.3	25.2	21.8	21.8	22.1	25.4	26.5	26.3	27.6	27.0	27.1
Eggs, strictly fresh.....dozen..	38.8	30.7	31.5	50.7	43.7	43.9	41.6	33.4	32.8	35.3	27.1	25.9	34.6	26.5	26.7
Bread.....pound..	8.7	8.8	8.8	8.6	8.7	8.7	9.4	8.8	8.8	9.1	9.0	9.0	10.0	10.0	10.0
Flour.....do.....	6.6	6.3	6.1	4.9	4.6	4.6	5.2	4.9	4.9	4.1	4.1	4.1	4.4	4.5	4.4
Corn meal.....do.....	4.1	3.9	3.9	6.8	6.6	6.6	4.7	4.5	4.4	4.8	5.0	5.1	4.8	4.8	4.7
Rollod oats.....do.....	8.5	8.2	8.2	8.7	8.3	8.3	8.8	8.4	8.3	9.9	9.9	9.9	8.6	8.5	8.5
Corn flakes.....8-ounce package..	9.6	9.2	9.2	9.0	8.8	8.8	9.7	9.5	9.5	9.9	9.7	9.7	9.5	9.5	9.5
Wheat cereal.....28-ounce package..	24.8	24.5	24.3	24.3	23.7	23.6	24.5	24.4	24.4	27.3	27.1	27.1	25.8	25.5	25.3
Macaroni.....pound..	10.9	10.3	10.2	20.9	20.1	20.2	19.2	18.9	19.1	21.2	20.9	20.7	18.7	18.7	18.7
Rice.....do.....	8.3	8.3	8.6	9.5	9.2	9.3	10.7	10.0	10.0	10.1	10.4	10.2	9.3	9.1	9.1
Beans, navy.....do.....	13.8	10.9	10.8	14.9	13.7	13.9	14.1	10.7	10.5	13.7	10.6	10.5	14.6	10.4	11.6
Potatoes.....do.....	3.4	3.8	4.0	3.5	4.7	4.6	3.7	4.7	4.7	2.3	3.9	4.3	1.8	4.1	4.3
Onions.....do.....	4.8	4.2	4.4	7.5	6.0	6.3	7.6	6.0	5.9	8.2	6.9	6.5	8.2	7.9	7.0
Cabbage.....do.....	4.6	4.7	4.4	5.2	8.0	6.5	3.5	6.4	5.3	5.6	9.4	5.5	5.6	8.5	6.6
Pork and beans.....No. 2 can..	10.9	9.9	9.9	11.8	10.6	10.8	10.6	9.6	9.6	13.0	12.7	12.7	10.9	11.3	11.3
Corn, canned.....do.....	15.2	14.8	14.8	15.2	14.7	15.0	15.2	14.9	15.2	15.3	15.5	15.5	14.0	14.1	13.9
Peas, canned.....do.....	15.9	15.8	15.8	15.4	14.5	15.1	17.7	16.8	15.8	14.9	14.7	14.7	17.1	16.8	16.8
Tomatoes, canned.....No. 2 can..	12.9	11.1	10.8	13.0	11.8	11.3	11.8	9.9	9.9	14.6	14.1	14.3	14.3	13.5	13.5
Sugar, granulated.....pound..	5.8	5.8	5.2	5.6	5.7	5.5	6.3	6.1	6.1	6.4	6.7	6.4	6.9	7.0	6.8
Tea.....do.....	83.1	80.4	80.3	67.4	66.1	65.9	94.8	93.3	92.5	78.0	78.9	78.6	65.2	61.9	62.4
Coffee.....do.....	36.2	30.8	30.9	44.9	35.3	37.4	49.4	38.6	39.6	53.6	45.0	44.7	48.1	41.0	40.7
Prunes.....do.....	14.4	16.5	15.9	13.6	15.9	15.3	14.4	17.6	16.6	15.0	18.3	18.5	16.2	19.4	18.2
Raisins.....do.....	9.9	10.7	10.6	11.8	12.3	12.3	12.0	11.4	11.6	13.6	13.3	12.9	12.6	13.5	13.2
Bananas.....dozen..	15.8	17.0	17.5	34.4	34.7	34.1	30.9	29.2	29.3	9.5	9.2	9.8	9.2	7.9	8.3
Oranges.....do.....	47.4	72.2	68.9	55.7	72.2	73.8	43.8	72.4	82.9	39.9	67.4	61.0	37.6	61.9	58.8

¹ Per pound.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Philadelphia, Pa.			Pittsburgh, Pa.			Portland, Me.			Portland, Oreg.			Providence, R. I.		
	1929			1929			1929			1929			1929		
	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15	June 15,	May 15	June 15
Sirloin steak.....pound.	65.1 ¹	61.5	62.0	57.1	53.5	53.0	75.4	67.9	68.8	39.6	37.6	37.6	79.6	80.5	80.5
Round steak.....do.	52.1	48.8	47.8	48.6	45.3	44.8	57.9	50.5	49.9	37.9	35.1	34.9	58.0	58.0	56.5
Rib roast.....do.	42.2	40.8	40.3	42.6	38.7	38.0	39.2	35.9	34.0	32.2	31.5	31.3	43.9	45.0	43.2
Chuck roast.....do.	35.4	30.7	30.3	34.3	30.7	30.7	29.2	27.2	26.3	28.1	25.6	25.6	34.7	36.5	35.4
Plate beef.....do.	20.0	18.4	17.9	20.3	18.3	18.0	27.5	24.0	23.7	21.9	19.8	19.4	26.5	28.5	26.9
Pork chops.....do.	42.5	38.8	40.0	40.6	37.4	38.0	38.8	36.6	39.0	36.8	36.1	36.4	40.9	40.7	41.4
Bacon, sliced.....do.	43.0	42.6	41.6	49.1	45.9	45.6	40.4	38.1	38.1	51.3	48.8	47.7	41.1	39.9	39.4
Ham, sliced.....do.	60.0	57.8	58.2	60.6	58.8	58.6	53.7	53.7	54.8	56.3	53.2	53.6	57.5	56.5	56.1
Lamb, leg of.....do.	43.3	38.6	39.7	44.9	38.1	39.4	41.3	34.2	37.7	38.1	35.4	32.6	42.7	37.8	37.9
Hens.....do.	44.6	40.2	37.8	49.9	44.2	43.7	45.3	41.2	40.8	37.2	36.8	33.8	45.3	40.2	38.4
Salmon, red, canned.....pound.	27.8	28.5	28.9	29.7	31.4	30.8	29.7	31.2	31.2	32.3	32.5	32.5	29.9	30.9	30.4
Milk, fresh.....quart.	13.0	13.0	13.0	14.0	13.0	13.0	15.0	14.0	14.0	12.0	12.0	12.0	15.7	15.5	15.0
Milk, evaporated.....16-ounce can.	10.9	10.5	10.1	10.5	10.2	9.9	11.6	11.5	11.0	10.1	10.1	9.9	11.2	10.8	10.6
Butter.....pound.	57.1	48.4	45.8	54.8	47.1	43.6	56.5	50.4	45.8	52.9	44.5	41.8	54.1	47.2	44.5
Oleomargarine (all butter substitutes).....pound.	28.5	27.2	27.1	27.8	26.6	26.2	27.1	25.3	25.3	26.2	24.8	24.8	26.6	24.4	24.4
Cheese.....do.	43.0	42.0	41.4	41.9	38.6	37.8	39.1	35.8	35.7	38.1	34.9	34.8	39.2	36.5	35.8
Lard.....do.	18.2	16.2	15.8	17.9	16.2	16.1	17.4	16.1	16.0	18.8	18.6	18.2	17.6	15.9	16.0
Vegetable lard substitute.....pound.	24.9	25.0	24.5	27.2	26.6	26.3	25.7	25.7	25.7	28.3	28.5	28.5	26.2	25.4	25.1
Eggs, strictly fresh.....dozen.	44.6	36.1	36.5	44.1	36.3	36.6	49.6	40.7	40.9	38.3	31.0	30.1	52.9	41.7	42.3
Bread.....pound.	8.2	8.2	8.2	8.9	8.8	8.8	9.0	9.0	9.0	9.3	9.2	9.2	9.0	8.7	8.7
Flour.....do.	4.8	4.7	4.6	4.5	4.5	4.4	4.7	4.7	4.6	4.6	4.6	4.4	5.1	4.9	4.8
Corn meal.....do.	5.2	5.7	5.7	6.0	6.5	6.2	5.2	5.2	5.2	5.6	5.9	5.9	5.0	5.0	5.0
Rolled oats.....do.	8.2	8.3	8.2	9.2	9.0	9.0	7.7	7.3	7.3	10.0	9.9	9.9	8.9	9.0	9.0
Corn flakes.....8-ounce package.	8.7	8.7	8.5	9.6	9.5	9.4	9.6	9.7	9.7	9.6	9.4	9.3	9.5	9.2	9.0
Wheat cereal.....28-ounce package.	24.4	24.6	24.6	24.6	24.8	25.0	25.8	25.9	25.9	27.0	26.3	26.7	24.8	24.5	24.5
Macaroni.....pound.	20.3	20.4	20.3	22.6	22.5	22.3	23.1	22.5	23.0	18.3	17.0	17.0	22.8	22.9	23.0
Rice.....do.	10.0	10.1	10.1	11.1	10.3	10.1	11.2	11.0	11.3	9.9	9.7	9.5	9.5	9.8	9.6
Beans, navy.....do.	14.7	11.9	11.7	14.4	10.7	10.2	13.6	12.5	12.0	14.7	12.2	12.6	13.7	11.6	11.7
Potatoes.....do.	3.7	4.9	4.5	3.8	3.9	4.4	2.3	3.3	3.1	3.1	4.7	4.3	3.1	3.7	3.6
Onions.....do.	6.0	5.5	5.3	7.4	6.6	7.0	7.3	6.6	6.6	5.1	2.9	3.6	7.2	6.1	6.1
Cabbage.....do.	4.4	6.3	4.7	5.1	8.3	6.7	5.3	8.1	6.8	4.9	6.6	4.2	4.4	7.0	6.0
Pork and beans.....No. 2 can.	11.3	10.4	10.2	13.0	11.8	11.8	15.7	16.0	16.0	13.3	12.0	12.0	11.6	10.8	10.8
Corn, canned.....do.	15.0	14.4	14.4	15.8	15.4	15.4	14.3	14.3	14.3	17.9	16.7	16.7	16.6	17.1	17.1
Peas, canned.....do.	15.2	15.0	15.0	16.7	15.7	15.8	17.8	17.0	17.0	16.9	16.5	16.5	17.9	17.9	17.9
Tomatoes, canned.....No. 2 can.	13.6	11.9	11.4	14.5	12.9	12.5	12.9	12.3	11.8	15.8	14.7	14.7	13.6	13.0	12.9
Sugar, granulated.....pound.	5.6	5.6	5.5	6.7	6.6	6.4	6.2	6.2	6.0	6.4	6.5	6.1	5.9	5.7	5.8
Tea.....do.	70.5	73.8	72.7	81.9	81.1	80.6	61.5	63.7	63.7	77.8	82.1	81.6	59.8	59.0	59.5
Coffee.....do.	43.9	35.1	33.5	49.2	41.2	40.6	52.6	44.6	44.7	53.2	45.1	44.1	52.1	40.1	40.2
Prunes.....do.	13.1	15.6	15.8	14.4	17.9	16.9	13.6	15.3	16.0	14.8	11.1	11.0	13.7	16.0	15.1
Raisins.....do.	10.7	11.2	11.3	11.6	12.4	12.3	10.8	11.4	11.5	10.9	10.8	11.6	11.8	12.2	12.7
Bananas.....dozen.	28.4	28.4	29.4	35.3	35.2	35.0	10.2	8.9	8.7	9.9	9.9	10.1	33.3	29.3	30.0
Oranges.....do.	43.3	70.6	67.3	40.2	70.8	75.1	49.7	72.2	76.7	34.9	57.9	55.8	54.2	73.4	76.4

¹ The steak for which prices are here quoted is called "sirloin" in this city, but in most other cities included in this report it would be known as "porterhouse" steak.

² Per pound.

³ No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Richmond, Va.			Rochester, N. Y.			St. Louis, Mo.			St. Paul, Minn.			Salt Lake City, Utah		
	June 15, 1929	1930		June 15, 1929	1930		June 15, 1929	1930		June 15, 1929	1930		June 15, 1929	1930	
		May 15	June 15		May 15	June 15		May 15	June 15		May 15	June 15			
Sirloin steak.....pound.....	Cts. 50.0	Cts. 47.4	Cts. 47.4	Cts. 48.9	Cts. 47.7	Cts. 46.5	Cts. 48.2	Cts. 44.9	Cts. 44.8	Cts. 45.3	Cts. 39.5	Cts. 40.4	Cts. 40.4	Cts. 38.1	Cts. 37.8
Round steak.....do.....	44.2	43.0	42.5	43.2	41.8	40.6	47.2	42.9	43.1	39.8	35.8	36.1	38.8	37.7	37.5
Rib roast.....do.....	37.4	35.7	35.5	36.0	34.6	33.9	38.0	35.7	35.1	36.0	32.7	32.8	32.7	32.1	32.2
Chuck roast.....do.....	28.7	29.2	29.4	32.2	29.6	29.4	30.6	28.4	27.3	30.2	26.9	27.4	27.4	26.8	26.7
Plate beef.....do.....	22.3	21.6	21.4	20.3	18.3	17.5	21.2	19.5	19.1	19.2	17.5	16.5	20.6	19.3	19.3
Pork chops.....do.....	38.1	35.2	36.5	39.8	38.6	39.0	33.8	31.3	33.7	34.2	32.9	34.1	38.6	39.7	38.7
Bacon, sliced.....do.....	38.7	37.9	38.1	36.9	36.9	36.9	42.0	40.6	40.5	43.8	40.6	41.6	44.8	44.1	43.8
Ham, sliced.....do.....	44.7	43.7	43.1	53.4	53.0	52.8	53.9	52.8	52.6	49.6	48.4	48.1	57.3	56.9	56.9
Lamb, leg of.....do.....	45.8	41.7	40.6	40.2	34.3	34.5	41.6	35.5	36.2	34.8	29.9	31.2	41.9	33.8	34.5
Hens.....do.....	40.7	36.9	36.1	44.9	40.0	37.9	40.5	35.6	33.6	37.4	33.2	29.1	35.7	33.9	31.2
Salmon, red, canned															
pound.....	31.0	31.9	31.9	31.4	30.5	30.6	32.0	32.7	32.8	35.7	35.4	35.4	33.6	32.7	33.1
Milk, fresh.....quart.....	14.0	14.0	14.0	13.5	14.0	14.0	13.0	13.0	13.0	12.0	11.0	11.0	10.0	10.0	10.0
Milk, evaporated															
16-ounce can.....	12.0	10.9	11.2	11.0	10.1	10.1	10.0	9.6	9.5	11.5	10.2	10.3	10.0	9.9	9.9
Butter.....pound.....	56.3	49.5	46.4	54.2	45.5	41.8	55.0	47.9	44.2	49.4	42.5	39.2	49.9	42.3	37.0
Oleomargarine (all butter substitutes)															
pound.....	29.7	30.1	29.9	28.1	26.2	26.3	26.4	24.3	24.1	23.9	23.0	22.1	26.0	27.0	27.6
Cheese.....do.....	35.1	34.4	30.6	39.8	35.2	34.3	36.6	33.1	31.8	35.6	33.2	32.7	29.6	28.8	27.4
Lard.....do.....	17.4	16.1	16.1	17.3	15.0	14.9	14.9	13.1	13.2	18.7	16.4	16.4	19.7	18.5	18.7
Vegetable lard substi- tute.....pound.....	25.4	23.6	23.3	25.7	22.8	22.4	25.3	25.1	25.1	27.3	25.9	26.2	29.3	29.1	29.3
Eggs, strictly fresh															
dozen.....	38.5	31.1	30.8	41.5	35.5	34.5	37.7	29.1	28.4	35.7	27.7	25.6	35.0	31.0	30.2
Bread.....pound.....	8.9	8.6	8.6	8.6	8.4	8.4	9.2	8.9	8.9	9.3	9.3	9.3	9.7	9.5	9.4
Flour.....do.....	4.8	4.9	4.8	4.9	4.5	4.5	4.7	4.7	4.6	4.5	4.5	4.5	3.6	3.6	3.4
Corn meal.....do.....	4.8	4.7	4.7	5.7	5.8	5.8	4.3	4.7	4.8	5.3	5.4	5.4	5.9	6.4	6.6
Roller oats.....do.....	8.9	8.9	8.7	8.6	8.1	8.1	8.1	7.9	7.9	10.1	9.2	9.2	8.6	8.5	8.4
Corn flakes															
8-ounce package.....	9.7	9.6	9.6	9.3	9.3	9.2	9.1	9.2	9.3	10.4	9.7	9.9	10.2	9.8	9.8
Wheat cereal															
28-ounce package.....	25.8	25.4	25.3	25.3	24.0	24.0	24.2	24.4	24.3	25.8	26.2	26.2	25.5	25.4	25.4
Macaroni.....pound.....	20.6	19.9	20.4	18.6	19.3	18.8	19.5	19.9	19.8	18.8	17.6	17.3	19.3	19.2	19.2
Rice.....do.....	11.0	9.9	10.3	8.5	8.9	8.9	9.8	9.5	9.2	10.7	9.6	9.5	8.9	8.8	9.0
Beans, navy.....do.....	14.4	12.0	11.8	14.4	10.4	10.6	14.0	10.4	10.4	14.7	11.8	12.1	12.6	9.9	9.6
Potatoes.....do.....	3.4	4.9	4.8	2.1	3.5	4.2	4.0	4.7	4.3	1.3	3.6	3.8	2.3	3.2	4.6
Onions.....do.....	8.7	6.9	6.9	6.1	6.4	5.8	6.8	5.8	5.5	6.8	6.8	5.5	7.5	3.9	5.1
Cabbage.....do.....	2.9	6.4	4.0	5.8	8.2	6.2	4.3	7.0	4.0	5.1	8.7	6.3	5.8	8.1	6.6
Pork and beans															
No. 2 can.....	11.1	9.8	10.0	11.0	10.2	10.1	10.5	10.1	10.1	13.7	12.4	12.6	12.7	12.5	12.4
Corn, canned.....do.....	15.3	14.7	14.7	16.2	15.4	15.6	15.2	14.5	14.5	15.1	14.4	14.5	14.1	13.9	14.1
Peas, canned.....do.....	17.5	17.8	17.7	17.1	15.5	15.0	15.0	14.9	15.0	14.9	14.5	14.7	15.0	14.7	14.7
Tomatoes, canned															
No. 2 can.....	13.1	12.1	11.2	15.5	15.1	15.2	13.2	12.2	12.2	14.7	14.2	14.4	13.9	13.7	13.8
Sugar, granulated															
pound.....	6.0	6.1	5.8	5.7	5.7	5.6	6.3	6.3	6.2	6.7	6.5	6.3	6.6	6.7	6.4
Tea.....do.....	96.1	96.5	96.5	67.6	68.7	68.8	74.0	69.8	70.6	71.3	65.8	65.7	85.3	84.7	85.0
Coffee.....do.....	47.1	39.2	40.3	47.5	37.2	34.9	46.8	38.3	37.8	52.3	45.2	45.2	54.9	48.5	48.1
Prunes.....do.....	14.2	17.4	17.8	14.7	18.9	17.5	14.8	19.0	18.6	14.4	18.0	18.2	13.6	17.3	16.9
Raisins.....do.....	10.8	12.4	12.5	11.4	11.9	11.8	11.3	11.6	11.6	13.4	13.1	13.1	11.5	11.5	11.4
Bananas.....dozen.....	32.5	32.1	33.8	27.5	26.5	29.2	32.0	31.0	30.0	9.9	9.9	10.2	11.5	9.6	9.4
Oranges.....do.....	39.3	56.9	69.7	45.8	73.1	70.7	45.8	61.4	59.5	48.4	70.3	62.1	36.6	64.5	61.2

* Per pound.

* No. 2½ can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	San Francisco, Calif.			Savannah, Ga.			Scranton, Pa.			Seattle, Wash.		
	June 15, 1929	1930		June 15, 1929	1930		June 15, 1929	1930		June 15, 1929	1930	
		May 15	June 15		May 15	June 15		May 15	June 15		May 15	June 15
Sirloin steak.....pound.....	Cts. 40.6	Cts. 41.8	Cts. 41.0	Cts. 45.0	Cts. 41.4	Cts. 40.5	Cts. 62.8	Cts. 58.3	Cts. 57.4	Cts. 46.3	Cts. 43.0	Cts. 43.1
Round steak.....do.....	38.7	39.6	39.1	39.5	37.3	36.8	52.8	49.4	48.4	41.1	39.2	38.9
Rib roast.....do.....	35.5	35.3	34.8	35.7	33.6	32.9	43.7	40.5	39.9	35.9	34.1	33.5
Chuck roast.....do.....	25.2	25.3	24.3	27.2	26.1	25.2	36.0	34.3	33.4	28.4	27.3	26.9
Plate beef.....do.....	20.0	19.3	18.5	21.2	20.3	20.3	20.1	19.1	18.4	22.8	21.0	20.5
Pork chops.....do.....	42.0	40.5	40.2	31.3	31.8	31.8	41.3	39.5	40.0	39.9	39.0	39.1
Bacon, sliced.....do.....	55.7	55.1	55.1	39.0	36.7	36.1	47.0	45.6	47.0	54.4	51.4	52.6
Ham, sliced.....do.....	63.1	63.0	63.0	44.5	45.0	45.0	60.8	58.7	58.9	59.8	59.5	58.4
Lamb, leg of.....do.....	38.7	35.6	35.3	41.2	36.7	35.9	48.6	40.5	41.9	41.7	36.9	35.9
Hens.....do.....	45.0	42.4	41.8	35.4	31.4	30.2	47.6	42.7	42.6	37.7	36.4	35.4
Salmon, red, canned.....do.....	28.1	29.9	30.0	32.8	32.5	32.5	33.6	32.4	32.3	32.6	33.1	33.7
Milk, fresh.....quart.....	14.0	14.0	14.0	17.5	18.0	18.0	13.0	14.0	14.0	12.0	12.0	12.0
Milk, evaporated.....16-ounce can.....	9.9	9.8	9.7	10.8	9.9	9.8	11.4	11.1	10.7	10.2	9.9	9.9
Butter.....pound.....	54.5	48.3	44.8	55.2	46.3	42.9	55.3	46.4	43.5	53.9	47.0	43.2
Oleomargarine (all butter substitutes).....pound.....	25.1	24.9	24.9	30.2	27.3	26.6	27.8	22.5	22.5	25.0	24.3	25.2
Cheese.....do.....	40.2	39.6	39.2	35.6	30.0	28.2	38.4	37.9	37.1	35.5	34.9	34.0
Lard.....do.....	22.5	20.8	20.8	18.3	16.5	16.0	19.2	17.3	17.3	20.0	18.9	18.9
Vegetable lard substitute.....do.....	27.8	28.1	28.1	17.3	16.6	16.3	26.6	26.7	26.4	26.6	26.6	26.4
Eggs, strictly fresh.....dozen.....	40.0	35.7	33.5	39.3	30.8	32.4	44.9	37.1	36.4	38.7	34.8	34.0
Bread.....pound.....	9.3	9.2	9.2	10.7	10.4	10.4	9.7	10.0	10.0	9.6	9.7	9.7
Flour.....do.....	5.1	5.1	5.0	6.4	5.8	5.5	5.3	5.4	5.2	4.7	4.5	4.4
Corn meal.....do.....	7.0	7.5	7.3	3.6	3.5	3.5	7.7	7.6	7.7	6.0	6.1	6.3
Rolled oats.....do.....	9.8	9.8	9.8	8.6	8.6	8.7	9.9	9.5	9.4	8.8	9.8	9.7
Corn flakes.....8-ounce package.....	9.6	9.8	9.8	9.6	9.6	9.5	9.8	9.8	9.8	9.8	9.7	9.6
Wheat cereal.....28-ounce package.....	25.2	25.2	25.2	24.0	24.9	24.8	25.3	25.8	25.8	26.7	26.3	26.3
Macaroni.....pound.....	15.9	16.9	16.8	18.1	17.4	17.4	22.7	22.6	22.1	18.2	17.6	17.0
Rice.....do.....	9.6	9.6	9.3	9.2	8.3	8.4	10.0	9.9	10.0	10.2	9.9	9.7
Beans, navy.....do.....	13.3	12.7	12.3	15.1	13.0	13.4	13.8	12.9	12.6	14.4	13.0	12.8
Potatoes.....do.....	3.6	4.9	4.3	3.4	4.4	4.1	3.5	4.1	4.1	3.3	4.5	4.3
Onions.....do.....	5.0	4.4	4.0	7.4	5.8	6.0	7.2	6.0	6.1	5.7	4.0	4.4
Cabbage.....do.....				3.4	5.1	4.7	4.6	8.0	6.2	5.5	7.7	5.2
Pork and beans.....No. 2 can.....	12.9	11.9	11.6	10.8	10.0	10.2	12.2	11.6	11.6	12.8	11.3	11.3
Corn, canned.....do.....	17.6	17.4	17.3	14.8	14.8	14.7	16.9	16.6	16.9	17.6	17.1	17.0
Peas, canned.....do.....	18.0	17.5	17.3	16.7	17.0	17.0	17.6	17.3	17.5	18.3	17.2	17.1
Tomatoes, canned.....No. 2 can.....	15.8	15.8	15.8	11.6	10.0	9.9	13.6	13.0	13.2	16.7	16.1	16.0
Sugar, granulated.....pound.....	6.2	6.1	5.9	6.1	5.8	5.8	6.4	6.3	6.1	6.0	6.3	6.0
Tea.....do.....	73.1	75.0	75.0	80.3	79.4	81.9	66.1	66.7	66.9	78.8	78.2	78.8
Coffee.....do.....	53.3	44.8	45.3	46.2	35.4	35.7	50.0	42.4	42.3	51.5	43.7	42.9
Prunes.....do.....	12.4	14.9	14.2	13.5	15.9	16.7	14.8	17.5	16.7	14.6	15.4	14.6
Raisins.....do.....	10.4	11.1	10.9	12.2	11.4	11.0	12.0	12.0	11.6	10.7	10.9	10.7
Bananas.....dozen.....	30.2	30.0	31.3	29.0	26.0	28.3	30.8	29.6	28.1	10.2	9.4	9.2
Oranges.....do.....	43.5	62.1	71.2	40.3	59.3	60.2	48.7	73.2	81.1	34.8	63.3	69.5

* Per pound.

* No. 2 1/4 can.

TABLE 5.—AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD, BY CITIES—Continued

Article	Springfield, Ill.			Washington, D. C.			Hawaii			
							Honolulu		Other lo- calities	
	June 15, 1929	1930		June 15, 1929	1930		1930			
		May 15	June 15		May 15	June 15	May 15	June 15	May 15	June 15
Sirloin steak.....pound	Cts. 45.6	Cts. 42.5	Cts. 41.5	Cts. 57.1	Cts. 52.4	Cts. 52.1	Cts. 38.4	Cts. 38.4	Cts. 32.8	Cts. 32.8
Round steak.....do	46.1	42.5	40.9	52.2	45.9	46.2	33.2	32.7	30.8	30.8
Rib roast.....do	34.0	32.2	31.4	39.9	36.4	36.6	32.8	32.8	30.0	30.0
Chuck roast.....do	30.5	28.2	26.5	33.3	28.4	28.0	25.0	25.0	26.5	26.5
Plate beef.....do	21.9	20.1	18.5	20.2	16.9	16.7	23.8	23.5	23.3	23.3
Pork chops.....do	33.5	31.7	32.0	40.4	38.1	39.5	43.4	43.2	36.6	36.8
Bacon, sliced.....do	44.1	41.6	41.5	41.8	40.6	40.7	54.4	55.2	52.5	52.1
Ham, sliced.....do	51.4	50.0	49.5	59.3	57.4	57.4	64.6	64.6	58.3	58.3
Lamb, leg of.....do	44.4	34.3	36.4	42.6	37.0	38.5	39.8	40.3	48.3	46.7
Hens.....do	35.9	32.5	31.7	46.4	41.3	40.3	50.4	45.0	53.3	55.0
Salmon, red, canned.....do	34.1	33.9	34.2	29.3	30.1	29.9	30.0	30.0	31.3	30.7
Milk, fresh.....quart	14.4	14.4	14.4	14.8	15.0	15.0	20.3	20.3	15.0	15.0
Milk, evaporated.....16-ounce can	11.6	9.8	9.9	11.5	10.8	10.1	10.2	10.2	11.0	10.8
Butter.....pound	51.3	43.8	41.2	56.4	48.9	45.6	53.9	53.5	55.7	55.3
Oleomargarine (all butter substitutes).....do	28.2	27.0	27.1	26.0	25.7	25.6				
Cheese.....do	37.7	34.9	34.1	41.1	36.7	36.4	37.9	37.7	37.7	36.7
Lard.....do	17.8	15.5	15.5	17.1	15.5	15.4	24.4	27.5	27.5	26.7
Vegetable lard substitute.....do	27.4	26.5	26.9	24.6	24.5	24.3	26.8	27.1	26.2	26.8
Eggs, strictly fresh.....dozen	34.9	26.3	25.5	44.7	36.2	36.2	49.4	48.7	51.8	52.5
Bread.....pound	10.1	10.3	10.3	8.9	8.9	8.9	10.6	10.6	10.0	10.0
Flour.....do	4.5	4.4	4.3	5.2	5.1	5.1	5.8	5.8	5.1	5.0
Corn meal.....do	4.8	4.8	4.8	5.2	4.9	4.9	10.6	10.8	12.2	12.2
Rolled oats.....do	9.6	9.6	9.6	9.1	8.9	8.9	12.7	12.6	13.9	13.7
Corn flakes.....8-ounce package	9.5	9.4	9.3	9.2	9.1	9.1	12.9	13.0	13.8	13.6
Wheat cereal.....28-ounce package	27.3	26.9	27.4	24.3	24.0	24.0	27.1	27.3	29.1	28.6
Macaroni.....pound	18.6	18.5	18.3	22.2	21.5	21.2	19.1	19.3	20.6	20.4
Rice.....do	10.0	9.8	9.7	11.2	10.5	10.4	6.1	6.1	5.5	5.4
Beans, navy.....do	14.2	9.7	10.1	14.2	11.3	11.5	14.3	14.4	13.4	13.2
Potatoes.....do	2.6	4.3	4.2	3.8	4.7	4.6	4.9	4.8	4.5	4.9
Onions.....do	7.8	6.8	7.2	7.3	6.1	6.1	4.1	4.3	4.5	4.6
Cabbage.....do	5.6	7.7	6.1	4.4	5.9	5.1	7.0	6.3	4.5	4.5
Pork and beans.....No. 2 can	11.3	9.6	9.7	11.1	9.9	9.9	11.3	11.2	11.1	10.8
Corn, canned.....do	14.9	15.0	14.8	15.4	14.9	15.0	18.7	18.8	21.1	20.8
Peas, canned.....do	16.3	15.2	15.2	14.8	16.1	16.1	18.6	18.4	19.6	19.4
Tomatoes, canned.....No. 2 can	14.5	13.7	13.7	12.4	11.0	10.8	14.7	15.0	18.1	17.9
Sugar, granulated.....pound	6.9	6.5	6.5	6.1	5.6	5.5	6.2	6.2	6.5	6.3
Tea.....do	84.2	81.5	81.5	90.7	90.2	90.9	85.1	85.6	85.6	84.8
Coffee.....do	51.7	44.8	44.4	46.1	36.9	36.5	40.7	40.8	44.4	45.3
Prunes.....do	15.4	18.9	18.4	15.2	17.9	18.7	17.2	16.6	18.1	17.6
Raisins.....do	11.9	12.8	13.2	13.1	12.6	12.5	12.4	12.2	14.7	14.5
Bananas.....dozen	19.1	17.7	18.4	28.5	27.5	28.1	17.7	18.3	10.0	10.0
Oranges.....do	49.0	77.1	74.1	43.6	73.0	76.8	59.4	62.7	62.5	67.5

1 Per pound.

Comparison of Retail Food Costs in 51 Cities

TABLE 6 shows for 39 cities the percentage of increase or decrease in the retail cost of food ³ in June, 1930, compared with the average cost in the year 1913, in June, 1929, and May, 1930. For 12 other cities comparisons are given for the 1-year and the 1-month periods; these cities have been scheduled by the bureau at different dates since 1913. The percentage changes are based on actual retail prices secured each month from retail dealers and on the average family consumption of these articles in each city.⁴

Effort has been made by the bureau each month to have all schedules for each city included in the average prices. For the month of June, 99 per cent of all the firms supplying retail prices in the 51 cities sent in a report promptly. The following-named 35 cities had a perfect record; that is, every merchant who is cooperating with the bureau sent in his report in time for his prices to be included in the city averages: Atlanta, Birmingham, Bridgeport, Buffalo, Butte, Charleston (S. C.), Cincinnati, Cleveland, Columbus, Dallas, Denver, Indianapolis, Jacksonville, Kansas City, Little Rock, Louisville, Memphis, Milwaukee, Minneapolis, Mobile, New Haven, New York, Norfolk, Omaha, Peoria, Pittsburgh, Portland (Me.), Portland (Oreg.), Richmond, Rochester, St. Paul, San Francisco, Savannah, Springfield (Ill.), and Washington.

TABLE 6.—PERCENTAGE CHANGE IN THE RETAIL COST OF FOOD, IN JUNE, 1930, COMPARED WITH THE COST IN MAY, 1930, JUNE, 1929, AND WITH THE AVERAGE COST IN THE YEAR 1913, BY CITIES

City	Percent- age in- crease June, 1930, com- pared with 1913	Percentage decrease June, 1930, com- pared with—		City	Percent- age in- crease June, 1930, com- pared with 1913	Percentage decrease June, 1930, com- pared with—	
		June, 1929	May, 1930			June, 1929	May, 1930
Atlanta.....	45.5	8.2	1.4	Minneapolis.....	51.7	2.7	*0.6
Baltimore.....	52.4	4.3	1.0	Mobile.....		5.4	1.4
Birmingham.....	50.2	5.2	1.4	Newark.....	42.6	4.3	1.6
Boston.....	50.3	2.3	1.1	New Haven.....	48.2	4.1	1.5
Bridgeport.....		5.1	.8	New Orleans.....	45.2	5.7	1.3
Buffalo.....	52.2	4.8	1.2	New York.....	50.0	4.6	.8
Butte.....		5.2	2.1	Norfolk.....		5.6	.9
Charleston, S. C.....	50.6	3.3	2.0	Omaha.....	44.9	2.3	1.0
Chicago.....	61.0	3.3	1.1	Peoria.....		.6	1.6
Cincinnati.....	55.9	3.7	1.1	Philadelphia.....	49.1	4.9	2.0
Cleveland.....	45.5	5.8	.9	Pittsburgh.....	49.0	6.1	.3
Columbus.....		.5	.7	Portland, Me.....		5.5	1.4
Dallas.....	44.5	7.0	2.5	Portland, Oreg.....	35.6	5.1	2.6
Denver.....	34.2	4.8	1.2	Providence.....	48.3	5.3	1.7
Detroit.....	52.1	7.3	1.0	Richmond.....	54.2	3.2	.9
Fall River.....	45.8	3.1	.2	Rochester.....		2.7	.7
Houston.....		5.4	1.2	St. Louis.....	51.1	6.4	2.4
Indianapolis.....	49.1	1.9	1.5	St. Paul.....		2.6	1.3
Jacksonville.....	37.0	4.2	.2	Salt Lake City.....	31.9	2.1	*0.4
Kansas City.....	45.9	3.5	2.9	San Francisco.....	46.6	3.2	2.7
Little Rock.....	40.8	5.5	2.7	Savannah.....		6.4	1.4
Los Angeles.....	33.7	7.3	3.3	Scranton.....	56.1	3.6	1.3
Louisville.....	44.9	7.4	1.7	Seattle.....	43.7	3.7	2.1
Manchester.....	46.2	2.9	.6	Springfield, Ill.....		3.0	1.8
Memphis.....	42.5	5.3	1.9	Washington.....	54.6	5.9	.9
Milwaukee.....	51.6	2.6	2.4				

* Increase.

³ For list of articles see note 1, p. 221.

⁴ The consumption figures used from January, 1913, to December, 1920, for each article in each city are given in the Labor Review for November, 1918, pp. 94 and 95. The consumption figures which have been used for each month, beginning with January, 1921, are given in the Labor Review for March, 1921, p. 26.

Retail Prices of Coal in the United States ¹

THE following table shows the average retail prices of coal on June 15, 1929, and May 15 and June 15, 1930, for the United States and for each of the cities from which retail food prices have been obtained. The prices quoted are for coal delivered to consumers, but do not include charges for storing the coal in cellar or coal bin where an extra handling is necessary.

In addition to the prices for Pennsylvania anthracite, prices are shown for Colorado, Arkansas, and New Mexico anthracite in those cities where these coals form any considerable portion of the sales for household use.

The prices shown for bituminous coal are averages of prices of the several kinds sold for household use.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS, FOR HOUSEHOLD USE, ON JUNE 15, 1929, AND MAY 15 AND JUNE 15, 1930

City, and kind of coal	1929	1930		City, and kind of coal	1929	1930	
	June 15	May 15	June 15		June 15	May 15	June 15
United States:				Cincinnati, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove—				Prepared sizes—			
Average price.....	\$14.82	\$14.65	\$14.62	High volatile.....	\$5.45	\$5.55	\$5.70
Index (1913=100).....	191.8	189.6	189.3	Low volatile.....	7.38	7.53	7.75
Chestnut—				Cleveland, Ohio:			
Average price.....	\$14.48	\$14.33	\$14.32	Pennsylvania anthracite—			
Index (1913=100).....	183.0	181.0	180.9	Stove.....	15.10	14.85	14.80
Bituminous—				Chestnut.....	14.55	14.50	14.50
Average price.....	\$8.50	\$8.53	\$8.54	Bituminous—			
Index (1913=100).....	156.5	157.0	157.2	Prepared sizes—			
Atlanta, Ga.:				High volatile.....	7.06	6.98	6.90
Bituminous, prepared sizes.....	\$7.24	\$7.12	\$7.19	Low volatile.....	9.03	9.08	9.15
Baltimore, Md.:				Columbus, Ohio:			
Pennsylvania anthracite—				Bituminous—			
Stove.....	13.50	13.50	13.58	Prepared sizes—			
Chestnut.....	13.00	13.00	13.08	High volatile.....	5.75	5.75	5.79
Bituminous, run of mine—				Low volatile.....	7.25	7.19	7.13
High volatile.....	7.79	7.75	7.68	Dallas, Tex.:			
Birmingham, Ala.:				Arkansas anthracite—Egg.....	14.00	13.50	14.00
Bituminous, prepared sizes.....	6.96	6.89	6.90	Bituminous, prepared sizes.....	11.83	11.00	12.17
Boston, Mass.:				Denver, Colo.:			
Pennsylvania anthracite—				Colorado anthracite—			
Stove.....	15.25	15.25	15.35	Furnace, 1 and 2 mixed.....	14.50	14.75	14.94
Chestnut.....	14.75	14.75	14.85	Stove, 3 and 5 mixed.....	13.83	14.75	14.94
Bridgeport, Conn.:				Bituminous, prepared sizes.....	9.39	9.43	9.76
Pennsylvania anthracite—				Detroit, Mich.:			
Stove.....	14.50	14.50	14.50	Pennsylvania anthracite—			
Chestnut.....	14.50	14.50	14.50	Stove.....	15.50	15.50	14.25
Buffalo, N. Y.:				Chestnut.....	15.00	15.00	14.25
Pennsylvania anthracite—				Bituminous—			
Stove.....	13.23	13.17	13.20	Prepared sizes—			
Chestnut.....	12.73	12.67	12.71	High volatile.....	8.31	8.05	8.00
Butte, Mont.:				Low volatile.....	9.53	9.46	9.46
Bituminous, prepared sizes.....	10.86	11.09	11.11	Run of mine—			
Charleston, S. C.:				Low volatile.....	7.83	7.67	7.67
Bituminous, prepared sizes.....	9.67	9.67	9.67	Fall River, Mass.:			
Chicago, Ill.:				Pennsylvania anthracite—			
Pennsylvania anthracite—				Stove.....	15.75	15.75	15.75
Stove.....	16.41	16.38	16.38	Chestnut.....	15.50	15.50	15.50
Chestnut.....	15.95	15.93	15.92	Houston, Tex.:			
Bituminous—				Bituminous, prepared sizes.....	12.00	11.60	11.60
Prepared sizes—				Indianapolis, Ind.:			
High volatile.....	7.62	7.58	7.69	Bituminous—			
Low volatile.....	10.10	10.29	10.38	Prepared sizes—			
Run of mine—				High volatile.....	6.00	5.89	5.73
Low volatile.....	7.50	7.75	7.75	Low volatile.....	7.93	7.88	7.96
				Run of mine—			
				Low volatile.....	6.63	6.80	6.80

¹ Prices of coal were formerly secured semiannually and published in the March and September issues of the Labor Review. Since June, 1920, these prices have been secured and published monthly.

TABLE 1.—AVERAGE RETAIL PRICES OF COAL PER TON OF 2,000 POUNDS FOR HOUSEHOLD USE, ON JUNE 15, 1929, AND MAY 15 AND JUNE 15, 1930—Continued

City, and kind of coal	1929	1930		City, and kind of coal	1929	1930	
	June 15	May 15	June 15		June 15	May 15	June 15
Jacksonville, Fla.: Bituminous, prepared sizes	\$12.00	\$14.00	\$13.00	Pittsburgh, Pa.: Pennsylvania anthracite— Chestnut	\$15.00	\$15.00	\$14.75
Kansas City, Mo.: Arkansas anthracite— Furnace	11.85	11.90	12.05	Bituminous, prepared sizes	5.18	5.20	5.11
Stove No. 4	13.00	12.92	12.67	Portland, Me.: Pennsylvania anthracite— Stove	15.84	16.32	16.32
Bituminous, prepared sizes	7.20	7.20	7.06	Chestnut	15.84	16.32	16.32
Little Rock, Ark.: Arkansas anthracite—Egg	12.75	12.50	12.50	Portland, Oreg.: Bituminous, prepared sizes	12.46	13.12	13.18
Bituminous, prepared sizes	9.40	9.45	9.40	Providence, R. I.: Pennsylvania anthracite— Stove	14.25	15.25	15.25
Los Angeles, Calif.: Bituminous, prepared sizes	16.50	16.50	16.25	Chestnut	15.25	15.25	15.25
Louisville, Ky.: Bituminous— Prepared sizes— High volatile	6.15	6.05	6.19	Richmond, Va.: Pennsylvania anthracite— Stove	14.00	14.00	14.00
Low volatile	8.75	8.31	8.50	Chestnut	14.00	14.00	14.00
Manchester, N. H.: Pennsylvania anthracite— Stove	16.25	16.00	16.00	Bituminous— Prepared sizes— High volatile	7.75	7.75	7.75
Chestnut	16.25	16.00	16.00	Low volatile	8.53	7.86	7.86
Memphis, Tenn.: Bituminous, prepared sizes	7.35	7.93	7.82	Run of mine— Low volatile	6.75	6.75	6.89
Milwaukee, Wis.: Pennsylvania anthracite— Stove	15.95	15.75	15.75	Rochester, N. Y.: Pennsylvania anthracite— Stove	14.25	13.95	13.95
Chestnut	15.50	15.30	15.30	Chestnut	13.75	13.45	13.45
Bituminous— Prepared sizes— High volatile	7.68	7.68	7.68	St. Louis, Mo.: Pennsylvania anthracite— Stove	16.20	16.25	16.23
Low volatile	10.38	10.08	10.16	Chestnut	15.95	16.00	15.98
Minneapolis, Minn.: Pennsylvania anthracite— Stove	17.95	17.75	17.75	Bituminous, prepared sizes	5.85	5.52	5.77
Chestnut	17.50	17.30	17.30	St. Paul, Minn.: Pennsylvania anthracite— Stove	17.95	17.75	17.75
Bituminous— Prepared sizes— High volatile	10.23	10.26	10.26	Chestnut	17.50	17.30	17.30
Low volatile	13.08	13.14	13.14	Bituminous— Prepared sizes— High volatile	9.94	10.08	10.08
Mobile, Ala.: Bituminous, prepared sizes	9.14	8.98	8.83	Low volatile	13.08	13.15	13.15
Newark, N. J.: Pennsylvania anthracite— Stove	13.65	13.40	13.46	Salt Lake City, Utah: Colorado anthracite— Furnace, 1 and 2 mixed	18.00		
Chestnut	13.15	12.90	12.96	Stove, 3 and 5 mixed	18.00		
New Haven, Conn.: Pennsylvania anthracite— Stove	14.48	14.40	14.40	Bituminous, prepared sizes	7.00	8.38	8.36
Chestnut	14.48	14.40	14.40	San Francisco, Calif.: New Mexico anthracite— Cerillos egg	25.00	25.00	25.00
New Orleans, La.: Bituminous, prepared sizes	9.21	9.00	9.11	Colorado anthracite— Egg	24.50	24.50	24.50
New York, N. Y.: Pennsylvania anthracite— Stove	14.08	13.21	13.21	Bituminous, prepared sizes	16.25	15.88	15.75
Chestnut	13.58	12.71	12.71	Savannah, Ga.: Bituminous, prepared sizes	9.54	9.68	9.62
Norfolk, Va.: Pennsylvania anthracite— Stove	14.00	13.75	13.50	Scranton, Pa.: Pennsylvania anthracite— Stove	10.08	9.72	9.75
Chestnut	14.00	13.75	13.50	Chestnut	9.72	9.35	9.38
Bituminous— Prepared sizes— High volatile	7.81	7.13	6.75	Seattle, Wash.: Bituminous, prepared sizes	10.39	10.75	10.57
Low volatile	9.00	8.00	7.00	Springfield, Ill.: Bituminous, prepared sizes	4.34	4.34	4.37
Run of mine— Low volatile	7.00	6.50	6.50	Washington, D. C.: Pennsylvania anthracite— Stove	115.13	114.73	114.98
Omaha, Nebr.: Bituminous, prepared sizes	9.53	9.38	9.38	Chestnut	114.63	114.23	114.48
Peoria, Ill.: Bituminous, prepared sizes	6.46	6.35	6.29	Bituminous— Prepared sizes— High volatile	18.63	18.21	18.21
Philadelphia, Pa.: Pennsylvania anthracite— Stove	14.43	12.92	13.00	Low volatile	111.00	110.43	110.68
Chestnut	13.93	12.44	12.50	Run of mine— Mixed	17.63	17.78	17.78

¹ Per ton of 2,240 pounds.² The average price of coal delivered in bin is 50 cents higher than here shown. Practically all coal is delivered in bin.³ All coal sold in Savannah is weighed by the city. A charge of 10 cents per ton or half ton is made. This additional charge has been included in the above price.

The following table shows for the United States both average and relative retail prices of Pennsylvania white-ash anthracite coal, stove and chestnut sizes, and of bituminous coal in January and July, 1913 to 1928, and for each month of 1929 and 1930. An average price for the year 1913 has been made from the averages for January and July of that year. The average price for each month has been divided by this average price for the year 1913 to obtain the relative price.

TABLE 2.—AVERAGE AND RELATIVE PRICES OF COAL FOR THE UNITED STATES ON SPECIFIED DATES FROM JANUARY, 1913, TO JUNE, 1930

Year and month	Pennsylvania anthracite, white ash—				Bituminous	
	Stove		Chestnut		Average price	Relative price
	Average price	Relative price	Average price	Relative price		
1913: Average for year.....	\$7.73	100.0	\$7.91	100.0	\$5.43	100.0
January.....	7.99	103.4	8.15	103.0	5.48	100.8
July.....	7.46	96.6	7.68	97.0	5.39	99.2
1914: January.....	7.80	100.9	8.00	101.0	5.97	109.9
July.....	7.60	98.3	7.78	98.3	5.46	100.6
1915: January.....	7.83	101.4	7.99	101.0	5.71	105.2
July.....	7.54	97.6	7.73	97.7	5.44	100.1
1916: January.....	7.93	102.7	8.13	102.7	5.69	104.8
July.....	8.12	105.2	8.28	104.6	5.52	101.6
1917: January.....	9.29	120.2	9.40	118.8	6.96	128.1
July.....	9.08	117.5	9.16	115.7	7.21	132.7
1918: January.....	9.88	127.9	10.03	126.7	7.68	141.3
July.....	9.96	128.9	10.07	127.3	7.92	145.8
1919: January.....	11.51	149.0	11.61	146.7	7.90	145.3
July.....	12.14	157.2	12.17	153.8	8.10	149.1
1920: January.....	12.59	162.9	12.77	161.3	8.81	162.1
July.....	14.28	184.9	14.33	181.1	10.55	194.1
1921: January.....	15.99	207.0	16.13	203.8	11.82	217.6
July.....	14.90	192.8	14.95	188.9	10.47	192.7
1922: January.....	14.98	193.9	15.02	189.8	9.89	182.0
July.....	14.87	192.4	14.92	188.5	9.49	174.6
1923: January.....	15.43	199.7	15.46	195.3	11.18	205.7
July.....	15.10	195.5	15.05	190.1	10.04	184.7
1924: January.....	15.77	204.1	15.76	199.1	9.75	179.5
July.....	15.24	197.2	15.10	190.7	8.94	164.5
1925: January.....	15.45	200.0	15.37	194.2	9.24	170.0
July.....	15.14	196.0	14.93	188.6	8.61	158.5
1926: January.....	(¹)	(¹)	(¹)	(¹)	9.74	179.3
July.....	15.43	199.7	15.19	191.9	8.70	160.1
1927: January.....	15.66	202.7	15.42	194.8	9.96	183.3
July.....	15.15	196.1	14.81	187.1	8.91	163.9
1928: January.....	15.44	199.8	15.08	190.6	9.30	171.1
July.....	14.91	192.9	14.63	184.9	8.69	159.9
1929: January.....	15.38	199.1	15.06	190.3	9.09	167.2
February.....	15.40	199.3	15.07	190.4	9.07	166.9
March.....	15.39	199.2	15.07	190.4	9.06	166.7
April.....	15.04	194.6	14.71	185.8	8.76	161.3
May.....	14.74	190.7	14.40	182.0	8.52	156.8
June.....	14.82	191.8	14.48	183.0	8.50	156.5
July.....	14.94	193.4	14.63	184.8	8.62	158.6
August.....	15.01	194.3	14.67	185.4	8.69	159.9
September.....	15.21	196.8	14.87	187.9	8.87	163.2
October.....	15.31	198.2	14.98	189.3	8.98	165.3
November.....	15.31	198.2	14.98	189.3	9.00	165.6
December.....	15.34	198.5	15.00	189.6	9.05	166.5
1930: January.....	15.33	198.4	15.00	189.5	9.11	167.6
February.....	15.33	198.4	15.00	189.6	9.04	166.4
March.....	15.33	198.4	15.00	189.6	9.02	166.0
April.....	15.32	198.3	14.99	189.4	8.84	162.7
May.....	14.65	189.6	14.33	181.0	8.53	157.0
June.....	14.62	189.3	14.32	180.9	8.54	157.2

¹ Insufficient data.

Retail Prices of Gas in the United States

THE net price per 1,000 cubic feet of gas for household use in each of 51 cities is shown in the following table. In Table 1 the average family consumption of manufactured gas is assumed to be 3,000 cubic feet per month. In cities where a service charge or a sliding scale is in operation, families using less than 3,000 cubic feet per month pay a somewhat higher rate than here shown, while those consuming more than this amount pay a lower rate. The figures here given are believed to represent quite closely the actual monthly cost of gas per 1,000 cubic feet to the average wage-earner's family. Prices for natural gas and for manufactured and natural mixed gas are shown in Table 2 for those cities where it is in general use. These prices are based on an estimated average family consumption of 5,000 cubic feet per month.

TABLE 1.—NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET, IN SPECIFIED MONTHS FROM APRIL, 1913, TO JUNE, 1930, BY CITIES

City	Apr. 15, 1913	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927	June 15, 1928	Dec. 15, 1928	June 15, 1929	Dec. 15, 1929	June 15, 1930
Atlanta.....	\$1.00	\$1.55	\$1.55	\$1.55	\$1.55	\$1.55	\$1.55	\$1.55	\$1.43	\$1.43	.....
Baltimore.....	.90	.85	.85	.85	.85	.85	.85	.85	.85	.85	\$0.85
Birmingham.....	1.00	.80	.80	.80	.80	.80	.80	.80	.80	.80	.80
Boston.....	.81	1.20	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.16	1.16
Butte.....	1.49	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10
Charleston, S. C.....	1.10	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55	1.55
Chicago.....	.80	1.02	1.02	1.02	1.02	1.02	.98	.98	.98	.98	.98
Cleveland.....	.80	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Denver.....	.85	.95	.95	.95	.90	.90	.90	.....	.....	.....	.....
Detroit.....	.75	.82	.82	.79	.79	.79	.79	.79	.79	.79	.79
Fall River.....	.80	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.14	1.14
Houston.....	1.00	1.09	1.05	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis.....	.60	1.15	1.10	1.05	1.05	.95	.95	.95	.95	.95	.95
Jacksonville.....	1.20	1.97	1.97	1.97	1.92	1.92	1.92	1.92	1.92	1.92	1.92
Manchester.....	1.10	1.38	1.38	1.38	1.38	1.38	1.34	1.34	1.34	1.34	1.34
Memphis.....	1.00	1.20	1.20	1.20	1.20	1.20	1.20	1.20	.....	.....	.....
Milwaukee.....	.75	.82	.82	.82	.82	.82	.82	.82	.82	.82	.82
Minneapolis.....	.85	1.01	.95	.97	.96	.94	.94	.90	.89	.89	1.05
Mobile.....	1.10	1.80	1.80	1.80	1.76	1.76	1.76	1.76	1.76	1.76	1.76
Newark.....	1.00	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.21	1.21
New Haven.....	.90	1.18	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
New Orleans.....	1.10	1.30	1.30	1.30	1.30	1.30	1.30	.....	.....	.....	.....
New York.....	.84	1.23	1.23	1.23	1.24	1.24	1.25	1.25	1.25	1.24	1.24
Norfolk.....	1.00	1.40	1.40	1.33	1.33	1.33	1.33	1.33	1.33	1.32	1.32
Omaha.....	1.15	1.18	1.08	1.08	1.08	1.00	1.00	1.00	.95	.95	.95
Peoria.....	.90	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Philadelphia.....	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Portland, Me.....	1.10	1.55	1.55	1.50	1.42	1.42	1.42	1.42	1.42	1.42	1.42
Portland, Oreg.....	.95	1.16	1.16	1.19	1.17	1.17	1.17	1.17	1.17	1.17	1.17
Providence.....	.85	1.22	1.17	1.17	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Richmond.....	.90	1.30	1.30	1.29	1.29	1.29	1.29	1.29	1.29	1.29	1.29
Rochester.....	.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
St. Louis.....	.80	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.11	1.11
St. Paul.....	.95	.85	.85	.90	.90	.90	.90	.90	.90	.90	.90
Salt Lake City.....	.87	1.57	1.54	1.53	1.52	1.52	1.51	1.51	1.51	.....	.....
San Francisco.....	.75	1.00	1.05	.95	.95	.95	.94	.94	.90	.90	.....
Savannah.....	.....	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45
Scranton.....	.95	1.50	1.50	1.50	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Seattle.....	1.00	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.43
Springfield, Ill.....	1.00	1.35	1.35	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Washington, D. C.....	.93	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Honolulu, Hawaii.....	.....	.....	.....	.....	.....	.....	.....	.....	1.77	1.77	1.77

TABLE 2.—NET PRICE PER 1,000 CUBIC FEET OF GAS BASED ON A FAMILY CONSUMPTION OF 5,000 CUBIC FEET, IN SPECIFIED MONTHS FROM APRIL, 1913, TO JUNE 1930, BY CITIES

Natural gas

City	Apr. 15, 1913	June 15, 1924	June 15, 1925	June 15, 1926	June 15, 1927	Dec. 15, 1927	June 15, 1928	Dec. 15, 1928	June 15, 1929	Dec. 15, 1929	June 15, 1930
Atlanta.....											\$1.17
Buffalo.....	\$0.30										
Cincinnati.....	.30	\$0.50	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	\$0.75	.75
Cleveland.....	.30	.55	.55	.60	.60	.60	.60	.60	.60	.60	.60
Columbus.....	.30	.45	.55	.55	.48	.48	.48	.48	.48	.48	.48
Dallas.....	.45	.68	.74	.74	.79	.79	.79	.79	.79	.79	.79
Denver.....								.99	.99	.99	.99
Houston.....				.75	.75	.75	.75	.75	.75	.75	.75
Kansas City.....	.27	.95	.95	.95	.95	.95	.95	.95	.95	.95	.95
Little Rock.....	.40	.65	.65	.65	.65	.65	.65	.65	.65	.65	.65
Los Angeles.....					.91	.91	.91	.84	.84	.84	.84
Louisville.....		.45	.45	.45	.45	.45	.45	.45	.45	.45	.45
Memphis.....								.97	.95	.95	.95
New Orleans.....								.95	.95	.95	.95
Pittsburgh.....	.28	.53	.60	.60	.60	.60	.60	.60	.60	.60	.60
Salt Lake City.....										.99	.99
San Francisco.....											.97

Manufactured and natural gas mixed

Buffalo.....		\$0.60	\$0.60	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65	\$0.65
Los Angeles.....		.68	.68	.68							

From the prices quoted on manufactured gas, average prices have been computed for all of the cities combined and are shown in the next table for specified months of each year from 1913 to 1930. These prices are based on an estimated average family consumption of 3,000 cubic feet.

Relative prices have been computed by dividing the price in each year by the price in April, 1913.

The price of manufactured gas in June, 1930, showed an increase of 27.4 per cent since April, 1913. From December, 1929, to June, 1930, there was no change in the price of gas.

TABLE 3.—AVERAGE AND RELATIVE NET PRICE PER 1,000 CUBIC FEET OF MANUFACTURED GAS IN UNITED STATES, BASED ON A FAMILY CONSUMPTION OF 3,000 CUBIC FEET IN SPECIFIED MONTHS OF EACH YEAR, 1913 TO 1930

Date	Average net price	Relative price	Date	Average net price	Relative price
Apr. 15, 1913.....	\$0.95	100.0	Sept. 15, 1923.....	\$1.24	130.5
Apr. 15, 1914.....	.94	98.9	Dec. 15, 1923.....	1.25	131.6
Apr. 15, 1915.....	.93	97.9	Mar. 15, 1924.....	1.24	130.5
Apr. 15, 1916.....	.92	96.8	June 15, 1924.....	1.24	130.5
Apr. 15, 1917.....	.91	95.8	Sept. 15, 1924.....	1.24	130.5
Apr. 15, 1918.....	.95	100.0	Dec. 15, 1924.....	1.24	130.5
Apr. 15, 1919.....	1.04	109.5	June 15, 1925.....	1.23	129.5
Apr. 15, 1920.....	1.09	114.7	Dec. 15, 1925.....	1.23	129.5
May 15, 1921.....	1.32	138.9	June 15, 1926.....	1.23	129.5
Sept. 15, 1921.....	1.31	137.9	Dec. 15, 1926.....	1.22	128.4
Dec. 15, 1921.....	1.30	136.8	June 15, 1927.....	1.22	128.4
Mar. 15, 1922.....	1.29	135.8	Dec. 15, 1927.....	1.22	128.4
June 15, 1922.....	1.27	133.7	June 15, 1928.....	1.21	127.4
Sept. 15, 1922.....	1.26	132.6	Dec. 15, 1928.....	1.22	128.4
Dec. 15, 1922.....	1.25	131.6	June 15, 1929.....	1.22	128.4
Mar. 15, 1923.....	1.25	131.6	Dec. 15, 1929.....	1.21	127.4
June 15, 1923.....	1.24	130.5	June 15, 1930.....	1.21	127.4

Retail Prices of Electricity in the United States

Explanation of Prices

THE following table shows for 51 cities the net rates per kilowatt-hour of electricity used for household purposes for specified months in 1928, 1929, and 1930. For the cities having more than one tariff for domestic consumers the rates are shown for the schedule under which most of the residences are served.

Several cities have sliding scales based on a variable number of kilowatt-hours payable at each rate. The number of kilowatt-hours payable at each rate in these cities is determined for each customer according to the watts of installation, either in whole or in part, in the individual home. The number of watts so determined is called the customer's "demand."

In Baltimore the demand is the maximum normal rate of use of electricity in any half-hour period of time. It may be estimated or determined by the company from time to time according to the customer's normal use of electricity and may equal the total installation reduced to kilowatts.

In Buffalo the demand consists of two parts—lighting, 25 per cent of the total installation, but never less than 250 watts; and power, $2\frac{1}{2}$ per cent of the capacity of any electric range, water heater, or other appliance of 1,000 watts or over and 25 per cent of the rated capacity of motors exceeding one-half horsepower but less than 1 horsepower. The installation is determined by inspection of premises.

In Houston the demand is estimated as 50 per cent of the connected load, each socket opening being rated at 50 watts.

In New York the demand for Company C, when not determined by meter, has been computed at 50 per cent of total installation in residences, each standard socket being rated at 50 watts and all other outlets being rated at their actual kilowatt capacity.

In Portland, Oreg., the demand for Company A has been estimated as one-third of the connected lighting load. Ranges, heating devices, and small power up to a rated capacity of 2 kilowatts are not included.

In Washington, D. C., the demand is determined by inspection and consists of 100 per cent of the connected load, excluding small fans and heating and cooking appliances when not permanently connected.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN SPECIFIED MONTHS OF 1928, 1929, AND 1930, FOR 51 CITIES

City	Measure of consumption, per month	June, 1928	December, 1928	June, 1929	December, 1929	June, 1930
		Cents	Cents	Cents	Cents	Cents
Atlanta	Service charge			100.0	100.0	100.0
	First 50 kilowatt-hours	¹ 8.1	¹ 8.1	5.0	5.0	5.0
	Next 150 kilowatt-hours			3.0	3.0	3.0
Baltimore	First 20 hours' use of demand ²	7.0	7.0	7.0	6.7	6.7
	Next kilowatt-hours equal to 8 times the consumption at the primary rate—minimum 200 kilowatt-hours	³ 4.0	³ 4.0	³ 4.0	3.4	3.4
Birmingham	First 100 kilowatt-hours	7.7	7.7	7.7	7.7	7.7
Boston	First 2 kilowatt-hours per 100 square feet of floor area	⁴ 8.5	8.5	8.5	8.5	8.5
	Next 70 kilowatt-hours		5.0	5.0	5.0	5.0
	Excess		3.0	3.0	3.0	3.0
Bridgeport	All current	6.0	5.5	5.5	5.5	5.5
Buffalo	First 60 hours' use of demand ¹	5.0	5.0	5.0	5.0	5.0
	Next 120 hours' use of demand ²	4.0	4.0	4.0	4.0	4.0
	Excess	1.5	1.5	1.5	1.5	1.5
Butte	First 25 kilowatt-hours	8.0	8.0	8.0	8.0	8.0
	Next 25 kilowatt-hours	4.0	4.0	4.0	4.0	4.0
Charleston, S. C.	First 50 kilowatt-hours	10.0	10.0	10.0	10.0	10.0
Chicago	First 3 kilowatt-hours per room	7.0	7.0	7.0	7.0	5.0
	Next 3 kilowatt-hours per room	5.0	5.0	5.0	5.0	7.0
	Excess	3.0	3.0	3.0	3.0	3.0
Cincinnati	Service charge per room		10.0	10.0	10.0	10.0
	First 6 kilowatt-hours per room; minimum, 4 rooms	⁵ 7.5	5.0	5.0	5.0	5.0
	Next 60 kilowatt-hours	5.0				
	Excess	3.5	3.0	3.0	3.0	3.0
Cleveland:						
Company A	First 40 kilowatt-hours	⁶ 5.0	⁶ 5.0	⁶ 5.0	⁶ 6.0	5.0
	Next 200 kilowatt-hours					4.0
Company B	Service charge	30.0	30.0	30.0	30.0	30.0
	All current	3.0	3.0	3.0	3.0	3.0
Columbus	First 50 kilowatt-hours	⁷ 7.0	⁷ 7.0	7.0	6.0	6.0
Dallas	First 800 kilowatt-hours	6.0	6.0	6.0	6.0	6.0
Denver	First 15 kilowatt-hours	7.0	7.0	7.0	7.0	7.0
	Next 30 kilowatt-hours	6.0	6.0	6.0	6.0	6.0
	Excess	5.0	5.0	5.0	5.0	5.0
Detroit	First 3 kilowatt-hours per active room; minimum, 3 rooms	9.0	9.0	9.0	9.0	9.0
	Next 50 kilowatt-hours		3.6	3.6	3.6	3.6
	Excess	3.6	2.3	2.3	2.3	2.3
Fall River	First 25 kilowatt-hours	8.0	8.0	8.0	8.0	8.0
	Next 75 kilowatt-hours	5.0	5.0	5.0	5.0	5.0
Houston	First 3 kilowatt-hours per room; minimum, 4 rooms	⁸ 7.2	⁸ 7.2	⁸ 7.2	7.0	7.0
	Next 100 kilowatt-hours	⁹ 4.5	⁹ 4.5	⁹ 4.5	4.0	4.0
Indianapolis	First 50 kilowatt-hours	6.5	6.5	6.5	6.5	6.5
	Next 50 kilowatt-hours	6.0	6.0	6.0	6.0	6.0
Jacksonville	First 500 kilowatt-hours	¹⁰ 7.0	¹⁰ 7.0	¹⁰ 7.0	7.0	7.0
Kansas City	First 5 kilowatt-hours per active room; minimum, 3 rooms	7.0	7.0	7.0	6.5	6.5
	Next 5 kilowatt-hours per room	5.0	5.0	5.0	4.5	4.5
	Excess	2.5	2.5	2.5	2.5	2.5
Little Rock	First 4 rooms or less. (Rooms in excess of 4, 10 cents each additional)					50.0
	First 6 kilowatt-hours per room	¹¹ 10.0	¹¹ 10.0	¹¹ 10.0	¹¹ 10.0	7.0
	Next 6 kilowatt-hours per room					5.0
Los Angeles	First 35 kilowatt-hours	¹² 5.0	¹² 5.0	¹² 5.0	¹² 5.0	4.8
	Next 140 kilowatt-hours					2.5
Louisville	First 30 kilowatt-hours	¹³ 7.6	¹³ 7.6	¹³ 7.6	7.6	7.6
Manchester	First step: 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours	11.0	11.0	10.0	10.0	10.0
	Next step: Number of kilowatt-hours equal to the first step	7.0	7.0	7.0	7.0	7.0
Memphis	First 6 kilowatt-hours per room	8.0	8.0	8.0	8.0	8.0
	Excess	5.0	5.0	5.0	5.0	5.0
Milwaukee	First 9 kilowatt-hours for each of the first 6 active rooms and the first 7 kilowatt-hours for each active room in addition to the first 6	6.7	6.7	6.7	6.7	6.2
	Next kilowatt-hours up to 200		¹⁴ 2.9	¹⁴ 2.9	¹⁴ 2.9	2.9
	Excess	2.9	1.9	1.9	1.9	1.9
Minneapolis	First 3 kilowatt-hours per active room; minimum, 2 rooms	9.5	8.6	8.6	8.6	8.6
	Next 3 kilowatt-hours per active room	7.1	7.1	7.1	7.1	7.1

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN SPECIFIED MONTHS OF 1928, 1929, AND 1930, FOR 51 CITIES—Continued

City	Measure of consumption, per month	June, 1928	December, 1928	June, 1929	December, 1929	June, 1930
		Cents	Cents	Cents	Cents	Cents
Mobile.....	Service charge for house of 3 rooms—consumption of 5 kilowatt-hours included, 10 cents extra for each additional room; not more than 10 rooms counted.			80.0	80.0	80.0
	First 50 kilowatt-hours.....	9.0	9.0			
	Next 45 kilowatt-hours.....			5.0	5.0	5.0
Newark.....	First 20 kilowatt-hours.....	9.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours.....	8.0	8.0	8.0	8.0	8.0
New Haven.....	All current.....	6.0	5.5	5.5	5.5	5.5
New Orleans.....	Service charge.....	25.0	25.0	25.0	25.0	25.0
	First 20 kilowatt-hours.....	9.1	9.1	9.1	9.1	9.1
	Next 30 kilowatt-hours.....	7.8	7.8	7.8	7.8	7.8
New York:						
Company A.....	First 1,000 kilowatt-hours.....	7.3	7.0	7.0	7.0	7.1
Company B.....	All current.....	9.5	9.5	9.5	9.5	9.5
Company C.....	First 60 hours' use of demand ¹	7.3	7.0	7.0	7.0	7.0
Norfolk.....	First 100 kilowatt-hours.....	8.5	8.5	8.5	8.5	8.5
Omaha.....	First 10 kilowatt-hours per room.....	¹⁰ 5.5	¹⁰ 5.5	5.5	5.5	5.5
	Next 160 kilowatt-hours.....			3.0	3.0	3.0
Peoria.....	First 4 kilowatt-hours per active room.....	¹⁰ 9.0	¹⁰ 9.0	9.0	9.0	9.0
	Next 4 kilowatt-hours per active room.....	¹⁵ 6.0	¹⁵ 6.0	6.0	6.0	6.0
	Excess.....			3.0	3.0	3.0
Philadelphia:						
Company A.....	First 12 kilowatt-hours.....	8.0	8.0	8.0	8.0	8.0
	Next 36 kilowatt-hours.....	7.0	7.0	6.0	6.0	6.0
Company B.....	First 20 kilowatt-hours.....	9.0	9.0	9.0	9.0	9.0
	Next 30 kilowatt-hours.....	8.0	8.0	8.0	8.0	8.0
Pittsburgh.....	First 10 kilowatt-hours.....	8.0	8.0	8.0	8.0	8.0
	Next 20 kilowatt-hours.....	5.5	5.5	5.5	5.5	5.5
Portland, Me.....	First 3 rooms, 15 kilowatt-hours; 4 rooms, 18 kilowatt-hours; 5 rooms, 21 kilowatt-hours; 6 rooms, 24 kilowatt-hours; 7 rooms, 27 kilowatt-hours; 8 rooms, 30 kilowatt-hours.	¹⁰ 8.0	8.0	8.0	8.0	8.0
	Next 3 rooms, 35 kilowatt-hours; 4 rooms, 42 kilowatt-hours; 5 rooms, 49 kilowatt-hours; 6 rooms, 56 kilowatt-hours; 7 rooms, 63 kilowatt-hours; 8 rooms, 70 kilowatt-hours.	¹⁰ 5.0	5.0	5.0	5.0	5.0
Portland, Oreg.:						
Company A.....	First 9 kilowatt-hours.....	7.6	7.6	7.6	7.6	7.6
	Next kilowatt-hours in excess of the first 9 kilowatt-hours until 100 use of demand has been reached. ²	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours.....	2.9	2.9	2.9	2.9	2.9
Company B.....	First 13 kilowatt-hours.....	7.3	7.3	7.3	7.3	7.3
	Next kilowatt-hours: For an installation of 600 watts or less 7 kilowatt-hours will apply. For each 30 watts of installation in excess of 600 watts 1 additional kilowatt-hour will apply.	6.7	6.7	6.7	6.7	6.7
	Next 50 kilowatt-hours.....	2.9	2.9	2.9	2.9	2.9
Providence.....	Service charge.....	50.0	50.0	50.0	50.0	50.0
	All current.....	6.5	6.5	6.5	6.5	6.5
Richmond.....	First 100 kilowatt-hours.....	8.5	8.5	8.5	8.5	8.5
Rochester.....	All current.....	8.0	8.0	8.0	8.0	8.0
St. Louis:						
Company A.....	First 9 kilowatt-hours per active room.....	6.7	6.7	6.7	6.7	6.7
	Excess.....	2.4	2.4	2.4	2.4	2.4
Company B.....	First 4 rooms or less, 18 kilowatt-hours; 5 or 6 rooms, 27 kilowatt-hours; 7 or 8 rooms, 36 kilowatt-hours.	6.7	6.7	6.7	6.7	6.7
	Excess.....	2.4	2.4	2.4	2.4	2.4
St. Paul.....	First 3 kilowatt-hours per room.....	9.5	8.6	8.6	8.6	8.6
	Next 3 kilowatt-hours per room.....	7.1	7.1	7.1	7.1	7.1
	Excess.....	2.9	2.9	2.9	2.9	2.9
Salt Lake City.....	Service charge—consumption of 11 kilowatt-hours included.			90.0	90.0	90.0
	First 250 kilowatt-hours.....	8.1	8.1			
	Excess.....			7.0	7.0	7.0
San Francisco:						
Company A.....	Service charge.....	40.0	40.0	40.0	40.0	40.0
	First 30 kilowatt-hours for residence of 6 rooms. 5 kilowatt-hours added for each additional room.	5.0	5.0	5.0	5.0	4.5
	Next 140 kilowatt-hours.....	3.5	3.5	3.5	3.5	3.5

For footnotes see end of table.

NET PRICE PER KILOWATT-HOUR FOR ELECTRICITY FOR HOUSEHOLD USE IN SPECIFIED MONTHS OF 1928, 1929, AND 1930, FOR 51 CITIES—Continued

City	Measure of consumption, per month	June, 1928	December, 1928	June, 1929	December, 1929	June, 1930
San Francisco—Continued.		Cents	Cents	Cents	Cents	Cents
Company B—	Service charge.....	40.0	40.0	40.0	40.0	40.0
	First 30 kilowatt-hours for residence of 6 rooms. 5 kilowatt-hours added for each additional room.....	5.0	5.0	5.0	5.0	4.5
	Next 140 kilowatt-hours.....	4.0	4.0	4.0	3.5	3.5
Savannah.....	Service charge.....				100.0	100.0
	First 50 kilowatt-hours.....	¹ 9.0	¹ 9.0	¹ 9.0	6.0	6.0
Scranton.....	First 150 kilowatt-hours.....	10.0	9.0	9.0	9.0	9.0
Seattle:						
Company A—	First 40 kilowatt-hours.....	5.5	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours.....	2.0	2.0	2.0	2.0	2.0
Company B—	First 40 kilowatt-hours.....	5.5	5.5	5.5	5.5	5.5
	Next 200 kilowatt-hours.....	2.0	2.0	2.0	2.0	2.0
Springfield, Ill.:						
Company A—	First 30 kilowatt-hours.....	6.0	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours.....	3.0	3.0	3.0	3.0	3.0
Company B—	First 30 kilowatt-hours.....	6.0	6.0	6.0	6.0	6.0
	Next 70 kilowatt-hours.....	3.0	3.0	3.0	3.0	3.0
Washington, D. C.	All current.....	¹⁷ 5.9	¹⁷ 5.9	5.2	5.2	4.7
Honolulu, Hawaii..	First 100 kilowatt-hours.....	8.0	8.0	8.0	8.0	8.0

¹ First 100 kilowatt-hours.² For determination of demand see explanation of prices.³ Next kilowatt-hours up to 800.⁴ First 1,000 kilowatt-hours.⁵ First 30 kilowatt-hours.⁶ First 80 kilowatt-hours.⁷ First 75 kilowatt-hours.⁸ First 30 hours' use of demand. For determination of demand see explanation of prices.⁹ Excess.¹⁰ All current.¹¹ First 200 kilowatt-hours.¹² First 50 kilowatt-hours.¹³ 1 to 140 kilowatt-hours.¹⁴ Next kilowatt-hours up to 300.¹⁵ 5 kilowatt-hours for each of the first 2 active rooms and first 4 kilowatt-hours for each additional active room.¹⁶ Next 70 kilowatt-hours.¹⁷ First 120 hours' use of demand. For determination of demand see explanation of prices.

Index Numbers of Wholesale Prices in June, 1930

THE index number of wholesale prices computed by the Bureau of Labor Statistics of the United States Department of Labor shows a further decline in June. This index, which includes 550 price quotations weighted according to the importance of each commodity, stands at 86.8 for June, compared with 89.1 for May, 96.4 for June, 1929, and 100.0 for the year 1926. Based on these figures the purchasing power of the 1926 dollar was \$1.037 in June, 1929, and \$1.152 in June, 1930.

Farm products as a whole decreased nearly 4½ per cent in average price from May to June, due to further declines in barley, corn, oats, rye, wheat, beef cattle, hogs, sheep, poultry, cotton, alfalfa hay, and potatoes. Higher prices prevailed for calves, lambs, eggs, clover hay, flaxseed, and onions. Prices for the month averaged almost 14 per cent below those of June, 1929.

Foods declined over 1½ per cent from the May level, with decreases for butter, cheese, evaporated milk, beef, mutton, dressed poultry, coffee, and flour. For this group, also, prices were appreciably lower than in the corresponding month of last year.

Prices of hides and leather products as a group showed little change from the month before, with hides and skins appreciably higher and leather, boots and shoes, and other leather goods somewhat lower.

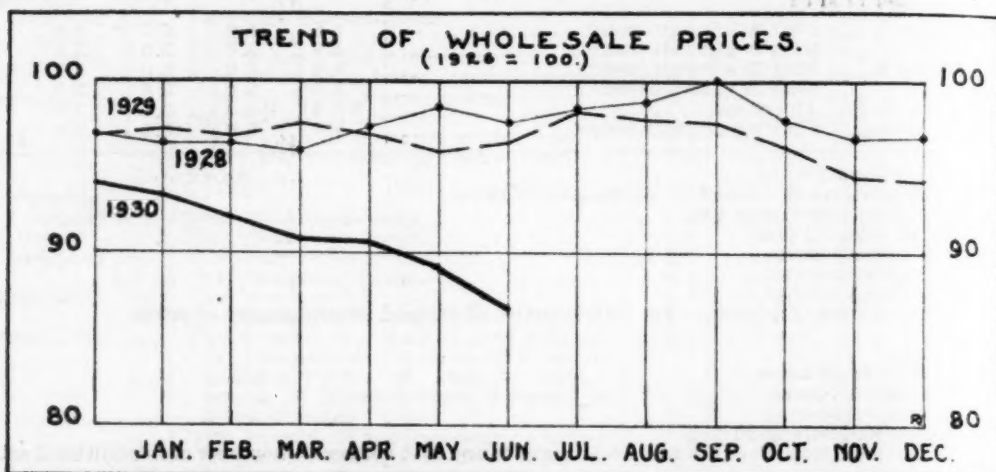
Textile products again were downward, with cotton goods, silk and rayon, woolen and worsted goods, and other textiles all participating in the decline.

Fuel and lighting materials likewise declined to some extent, anthracite and bituminous coal and petroleum products averaging lower than in May.

Metals and metal products averaged lower, with declines in iron and steel, and nonferrous metals, including copper, lead, silver, tin, and zinc.

Building materials also were noticeably lower than in May, prices of lumber, brick, cement, structural steel, and paint materials averaging well below those of the preceding month.

Prices of chemicals and drugs including fertilizer materials declined slightly, while mixed fertilizers showed a small increase.



House-furnishing goods, as a group, showed no change in the general price level.

In the group designated as miscellaneous there were decided price decreases reported for cattle feed, rubber, and automobile tires, with a smaller decrease for paper and pulp.

Decreases from May levels were shown for the three large groups of raw materials, semimanufactured articles, and finished products, while nonagricultural commodities and the group of all commodities other than farm products and foods also declined.

Of the 550 commodities or price series for which comparable information for May and June was collected, increases were shown in 50 instances and decreases in 231 instances. In 269 instances no change in price was reported.

Comparing prices in June with those of a year ago, as measured by changes in the index numbers, it is seen that decreases have taken place in all major groups of commodities, such decreases ranging from less than one-half of 1 per cent in the case of house-furnishing goods to nearly 14 per cent in the case of farm products.

INDEX NUMBERS OF WHOLESALE PRICES BY GROUPS AND SUBGROUPS OF COM-
MODITIES
[1926=100.0]

Groups and subgroups	June, 1929	May, 1930	June, 1930	Purchasing power of the dollar, June, 1930
All commodities.....	96.4	89.1	86.8	\$1.152
Farm products.....	103.3	93.0	88.9	1.125
Grains.....	91.0	82.1	78.7	1.271
Livestock and poultry.....	111.0	93.2	88.5	1.130
Other farm products.....	102.3	96.5	92.7	1.079
Foods.....	98.9	92.0	90.5	1.105
Butter, cheese, and milk.....	105.5	92.5	90.4	1.106
Meats.....	111.5	101.3	99.9	1.001
Other foods.....	88.5	86.3	85.1	1.175
Hides and leather products.....	108.0	102.6	102.4	.977
Hides and skins.....	110.9	96.8	99.0	1.010
Leather.....	110.3	104.2	102.9	.972
Boots and shoes.....	106.1	103.7	103.0	.971
Other leather products.....	105.5	105.3	105.1	.951
Textile products.....	93.3	84.6	82.2	1.217
Cotton goods.....	99.1	90.7	89.3	1.120
Silk and rayon.....	79.5	70.3	64.3	1.555
Woolen and worsted goods.....	97.8	88.9	88.6	1.129
Other textile products.....	80.3	72.1	69.0	1.449
Fuel and lighting.....	83.3	78.0	76.4	1.309
Anthracite coal.....	88.1	86.9	85.8	1.166
Bituminous coal.....	89.6	88.4	88.2	1.134
Coke.....	84.7	84.0	84.0	1.190
Gas.....	94.0	97.9	(1)	
Petroleum products.....	76.6	66.5	63.6	1.572
Metals and metal products.....	105.1	96.8	95.4	1.048
Iron and steel.....	98.2	92.9	91.7	1.091
Nonferrous metals.....	104.8	80.6	78.1	1.280
Agricultural implements.....	98.3	95.0	95.0	1.053
Automobiles.....	112.2	106.8	105.5	.948
Other metal products.....	98.5	98.4	98.4	1.016
Building materials.....	96.4	92.9	90.0	1.111
Lumber.....	94.2	89.7	85.3	1.172
Brick.....	89.1	86.4	83.0	1.205
Cement.....	94.6	92.7	91.7	1.091
Structural steel.....	99.6	91.9	86.8	1.152
Paint materials.....	86.5	89.1	88.7	1.127
Other building materials.....	106.1	101.8	99.6	1.004
Chemicals and drugs.....	93.4	89.9	88.9	1.125
Chemicals.....	98.6	95.3	93.8	1.066
Drugs and pharmaceuticals.....	69.8	67.8	67.9	1.473
Fertilizer materials.....	92.6	86.5	85.3	1.172
Mixed fertilizers.....	96.7	93.6	94.1	1.063
House-furnishing goods.....	96.6	96.2	96.2	1.040
Furniture.....	95.0	96.6	96.5	1.036
Furnishings.....	97.7	95.8	95.9	1.043
Miscellaneous.....	80.4	77.5	74.5	1.342
Cattle feed.....	106.2	110.3	102.0	.980
Paper and pulp.....	88.2	85.6	85.2	1.174
Rubber.....	42.7	29.2	25.9	3.861
Automobile tires.....	55.3	54.5	52.2	1.916
Other miscellaneous.....	109.7	107.9	103.3	.968
Raw materials.....	96.6	87.8	84.8	1.179
Semimanufactured articles.....	94.4	83.6	82.0	1.220
Finished products.....	96.7	91.0	88.9	1.125
Nonagricultural commodities.....	94.6	88.1	86.3	1.159
All commodities, less farm products and foods.....	93.1	87.5	85.7	1.167

¹ Data not yet available.

COST OF LIVING

Changes in the Cost of Living in the United States

COST of living in the United States decreased 2.8 per cent in the 6-month period from December, 1929, to June, 1930, and decreased 2.1 per cent between June, 1929, and June, 1930, according to data secured by the Bureau of Labor Statistics in its semiannual survey. These figures, together with data that have been published for previous periods, are shown in the tables following. The information concerning cost of living changes in the United States is based on actual prices obtained from merchants and dealers in 32 representative cities. For 19 of these cities the study began in December, 1914, and for the other 13 cities in December, 1917. The index number for the United States is determined by a consolidation of the figures for the 32 cities and is based on 1913 because that year is the basis for many of the bureau's index numbers.

The change between 1913 and December, 1914, was determined from retail food prices and other price data available.

Table 1 shows the index numbers for changes in the cost of living in the United States for all periods for which surveys have been made by the bureau. It will be noted that the index number of 216.5 for June, 1920, represents the peak of cost of living prices. In the 10-year period from June, 1920, to June, 1930, the cost of living index for the United States declined 23.0 per cent. In June, 1930, the index number was 166.6, representing an increase of 66.6 per cent above the average for 1913.

TABLE 1.—INDEX NUMBERS SHOWING CHANGES IN COST OF LIVING IN THE UNITED STATES, 1913 TO JUNE, 1930

Date	Index number	Date	Index number	Date	Index number
Average, 1913	100.0	December, 1921.....	174.3	December, 1924.....	172.5
December, 1914.....	103.0	March, 1922.....	166.9	June, 1925.....	173.5
December, 1915.....	105.1	June, 1922.....	166.4	December, 1925.....	177.9
December, 1916.....	118.3	September, 1922.....	166.3	June, 1926.....	174.8
December, 1917.....	142.4	December, 1922.....	169.5	December, 1926.....	175.6
December, 1918.....	174.4	March, 1923.....	168.8	June, 1927.....	173.4
June, 1919.....	177.3	June, 1923.....	169.7	December, 1927.....	172.0
December, 1919.....	190.3	September, 1923.....	172.1	June, 1928.....	170.0
June, 1920.....	216.5	December, 1923.....	173.2	December, 1928.....	171.3
December, 1920.....	200.4	March, 1924.....	170.4	June, 1929.....	170.2
May, 1921.....	180.4	June, 1924.....	169.1	December, 1929.....	171.4
September, 1921.....	177.3	September, 1924.....	170.6	June, 1930.....	166.6

Index numbers representing changes in the cost of living in the United States for each of six groups of items are given in Table 2.

Food increased 119 per cent from 1913, the base period, to June, 1920, which represents the peak of food prices. The low level of food prices occurred in March, 1922, when food was 38.7 per cent higher than in 1913. As of June, 1930, food increased 47.9 per cent since the base period and takes first place in point of declining prices for June, 1930, as compared with December, 1929.

Clothing increased 187.5 per cent from 1913 to June, 1920. Since that time there have been decreases except for the period between September, 1922, and December, 1923, when clothing prices increased less than 3 per cent. The June, 1930, index was 158.9.

Rents were considerably slower in getting started on the upward trend. The peak of rents for the United States was reached in December, 1924, the index being 168.2. Since that time the decreases have been steady, and rents show the third most impressive decline since December, 1929, the June, 1930, index being 149.6.

The peak of fuel and light prices was reached in December, 1920, the index being 194.9. The low level since this date was 174.2 in June, 1922. Coal and wood prices in June are lower than in December, and these decreases are reflected in the fluctuations of the fuel and light figures between June and December. Aside from these fluctuations between winter and summer prices, fuel and light have steadily decreased since the peak, the June, 1930, index being 172.8.

Since December, 1929, the cities of Atlanta and San Francisco changed from manufactured to natural gas.

The peak of the prices of house-furnishing goods was 292.7 in June, 1920. Since that time prices declined steadily, except for the period between September, 1922, and December, 1923, when prices increased almost 10 per cent. It was not until December, 1928, however, that the per cent of increase over 1913, the base period, fell below the hundred mark. The June, 1930, index on house-furnishing goods was 195.7.

The peak of prices of the miscellaneous group was reached in May, 1921, when the index was 208.8. The lowest index since that time was 200.3 in March and June, 1923. These items have continued upward, and at the present period the miscellaneous items are practically back to the peak of May, 1921, the June, 1930, index being 208.5. Increases in street car fare between December, 1929, and June, 1930, occurred in Baltimore, Cleveland, and Portland, Oreg.

In Table 3 is shown the per cent of decrease in the price of electricity since December, 1913. The June, 1930, figure shows a decrease of 18.5 per cent since 1913. During the 6-month period from December, 1929, to June, 1930, the price of electricity in Cleveland, Los Angeles, San Francisco, and Washington, D. C., declined, while a slight increase in the rate of electricity was reported in New York City.

TABLE 2.—INDEX NUMBERS SHOWING CHANGES IN COST OF GROUPS OF ITEMS ENTERING INTO COST OF LIVING IN THE UNITED STATES, 1913 TO JUNE, 1930

Date	Index numbers						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Average, 1913.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
December, 1914.....	105.0	101.0	(1)	101.0	104.0	103.0	103.0
December, 1915.....	105.0	104.7	101.5	101.0	110.6	107.4	105.1
December, 1916.....	126.0	120.0	102.3	108.4	127.8	113.3	118.3
December, 1917.....	157.0	149.1	100.1	124.1	150.6	140.5	142.4
December, 1918.....	187.0	205.3	109.2	147.9	213.6	165.8	174.4
June, 1919.....	184.0	214.5	114.2	145.6	225.1	173.2	177.3
December, 1919.....	197.0	268.7	125.3	156.8	263.5	190.2	199.3
June, 1920.....	219.0	287.5	134.9	171.9	292.7	201.4	216.5
December, 1920.....	178.0	258.5	151.1	194.9	285.4	208.2	200.4
May, 1921.....	144.7	222.6	159.0	181.6	247.7	208.8	180.4
September, 1921.....	153.1	192.1	160.0	180.9	224.7	207.8	177.3
December, 1921.....	149.9	184.4	161.4	181.1	218.0	206.8	174.3
March, 1922.....	138.7	175.5	160.9	175.8	206.2	203.3	166.9
June, 1922.....	140.7	172.3	160.9	174.2	202.9	201.5	166.4
September, 1922.....	139.7	171.3	161.1	183.6	202.9	201.1	166.3
December, 1922.....	146.6	171.5	161.9	186.4	208.2	200.5	169.5
March, 1923.....	141.9	174.4	162.4	186.2	217.6	200.3	168.8
June, 1923.....	144.3	174.9	163.4	180.6	222.2	200.3	169.7
September, 1923.....	149.3	176.5	164.4	181.3	222.4	201.1	172.1
December, 1923.....	150.3	176.3	166.5	184.0	222.4	201.7	173.2
March, 1924.....	143.7	175.8	167.0	182.2	221.3	201.1	170.4
June, 1924.....	142.4	174.2	168.0	177.3	216.0	201.1	169.1
September, 1924.....	146.8	172.3	168.0	179.1	214.9	201.1	170.6
December, 1924.....	151.5	171.3	168.2	180.5	216.0	201.7	172.5
June, 1925.....	155.0	170.6	167.4	176.5	214.3	202.7	173.5
December, 1925.....	165.5	169.4	167.1	186.9	214.3	203.5	177.9
June, 1926.....	159.7	168.2	165.4	180.7	210.4	203.3	174.8
December, 1926.....	161.8	166.7	164.2	188.3	207.7	203.9	175.6
June, 1927.....	158.5	164.9	162.1	180.8	205.2	204.5	173.4
December, 1927.....	155.9	162.9	160.2	183.2	204.6	205.1	172.0
June, 1928.....	152.6	162.6	157.6	177.2	201.1	205.5	170.0
December, 1928.....	155.8	161.9	155.9	181.3	199.7	207.1	171.3
June, 1929.....	154.8	161.3	153.7	175.2	198.5	207.3	170.2
December, 1929.....	158.0	160.5	151.9	178.7	197.7	207.9	171.4
June, 1930.....	147.9	158.9	149.6	172.8	195.7	208.5	166.6

¹ No change.

TABLE 3.—PER CENT OF DECREASE IN THE PRICE OF ELECTRICITY AT SPECIFIED PERIODS AS COMPARED WITH DECEMBER, 1913

Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913	Date	Per cent of decrease from December, 1913
December, 1914.....	3.7	March, 1922.....	4.9	June, 1925.....	9.9
December, 1915.....	6.2	June, 1922.....	6.2	December, 1925.....	9.9
December, 1916.....	8.6	September, 1922.....	6.2	June, 1926.....	11.1
December, 1917.....	11.1	December, 1922.....	7.4	December, 1926.....	11.1
December, 1918.....	6.2	March, 1923.....	7.4	June, 1927.....	12.3
June, 1919.....	6.2	June, 1923.....	7.4	December, 1927.....	12.3
December, 1919.....	7.4	September, 1923.....	8.6	June, 1928.....	13.6
June, 1920.....	7.4	December, 1923.....	8.6	December, 1928.....	14.8
December, 1920.....	4.9	March, 1924.....	8.6	June, 1929.....	17.3
May, 1921.....	4.9	June, 1924.....	8.6	December, 1929.....	17.3
September, 1921.....	4.9	September, 1924.....	8.6	June, 1930.....	18.5
December, 1921.....	4.9	December, 1924.....	8.6		

Table 4 shows changes in the cost of living in each of the 32 cities between June, 1920, which date represents the peak of cost of living prices, and June, 1930. It also shows changes from June, 1929, to June, 1930, and from December, 1929, to June, 1930. The decreases in cost of living from June, 1920, to June, 1930, ranged from 18.4 to 27.8 per cent as between the cities. Comparing June, 1929, with June,

1930, the decreases ranged from 1.1 to 5.0 per cent and in the 6-month period from December, 1929, to June, 1930, the decreases ranged from 0.6 to 4.9 per cent.

TABLE 4.—PER CENT OF CHANGE IN COST OF LIVING IN SPECIFIED CITIES FROM JUNE, 1920, JUNE, 1929, AND DECEMBER, 1929, TO JUNE, 1930

City	Per cent of decrease from—			City	Per cent of decrease from—		
	June, 1920, to June, 1930	June, 1929, to June, 1930	December, 1929, to June, 1930		June, 1920, to June, 1930	June, 1929, to June, 1930	December, 1929, to June, 1930
Atlanta.....	26.4	5.0	4.9	Mobile.....	22.6	2.3	2.7
Baltimore.....	19.9	1.3	2.0	New Orleans.....	19.1	2.5	3.4
Birmingham.....	23.7	3.7	3.2	New York.....	21.7	2.2	3.0
Boston.....	22.6	1.4	3.1	Norfolk.....	24.4	2.6	3.2
Buffalo.....	20.5	1.6	2.2	Philadelphia.....	20.8	2.4	3.4
Chicago.....	21.2	1.9	2.6	Pittsburgh.....	19.6	2.7	2.7
Cincinnati.....	18.4	1.4	2.4	Portland, Me.....	22.2	2.0	2.6
Cleveland.....	21.3	1.4	.6	Portland, Oreg.....	25.6	1.1	1.6
Denver.....	24.8	2.2	2.7	Richmond.....	21.9	1.7	2.3
Detroit.....	27.0	3.3	3.1	St. Louis.....	20.6	1.8	2.8
Houston.....	23.5	2.3	3.4	San Francisco.....	20.5	2.6	3.0
Indianapolis.....	22.7	1.4	2.3	Savannah.....	26.9	2.6	2.6
Jacksonville.....	25.6	3.5	2.9	Scranton.....	18.5	2.2	3.0
Kansas City.....	27.8	1.8	2.4	Seattle.....	21.4	1.4	2.0
Los Angeles.....	18.8	3.0	2.9	Washington.....	22.8	2.8	2.3
Memphis.....	21.7	1.8	1.5	Average, United States.....	23.0	2.1	2.8
Minneapolis.....	20.4	1.1	1.8				

Table 5 shows for 19 cities changes in the cost of living for each of six groups of items based on prices prevailing in December, 1914, while the figures in Table 6 for 13 cities are based on prices prevailing in December, 1917.

Local prices on standard articles of food are obtained monthly by mail from 15 to 25 grocers, meat dealers, bakers, and dairymen located in representative sections of each of the 32 cities.

Dry goods and clothing stores are canvassed for clothing prices. The lists comprise 32 articles of male clothing (19 articles for the husband and 13 for the 12-year-old boy) and 40 articles of female clothing (25 for the wife and 15 for the 6-year-old girl). Prices from four stores are secured on each article in all cities except New York, where five quotations are obtained.

Real-estate agencies are visited for rents on unfurnished houses, apartments, and flats occupied by white wage earners and moderately salaried families. Rentals are secured on the same properties scattered throughout different sections of the city as long as they continue to be representative and as far as we are able to follow them. The number of rents secured ranges from 400 for the smaller cities to 2,300 for New York City.

Fuel and light prices are obtained from regular correspondents. From 10 to 15 firms in each city report retail prices on coal and wood while the public utilities furnish figures on the price of gas and electricity.

Four prices are secured on each of the 28 articles which make up the list of furniture and housefurnishings. These articles consist of wool and grass rugs and linoleum, essential pieces of living room, dining room, and bed room furniture, baby carriage, table linen and bedding, stove, broom, sewing machine, and refrigerator.

The miscellaneous prices are based on changes in the prices of 14 different items—street-car fares, moving pictures, newspapers, physicians' fees, medicine, hospital fees for wards, dentists' fees, spectacles, laundry, cleaning supplies, barber service, toilet articles and preparations, telephone rates for residence phone, and tobacco prices. The average price of each item is weighted according to its importance in the average family budget.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Baltimore, Md.:							
December, 1915	14.1	2.7	10.2	0.5	5.6	11.4	11.4
December, 1916	20.9	24.0	.9	9.1	26.4	18.5	18.5
December, 1917	64.4	52.1	3.0	25.5	60.8	51.3	51.3
December, 1918	96.4	107.7	13.8	46.0	122.3	78.7	84.7
June, 1919	91.1	128.9	16.8	37.1	134.6	82.8	84.0
December, 1919	92.5	177.4	25.8	48.1	167.0	99.4	98.4
June, 1920	110.9	191.3	41.6	57.6	191.8	111.4	114.3
December, 1920	75.6	159.5	49.5	79.0	181.9	112.9	96.8
May, 1921	43.4	123.2	63.0	70.9	147.5	111.8	77.4
December, 1921	46.9	88.6	64.7	85.5	123.7	108.6	73.2
June, 1922	39.9	78.9	65.4	84.8	113.3	104.4	67.6
December, 1922	46.1	80.5	66.9	94.9	116.6	102.6	70.9
June, 1923	46.5	81.4	69.6	91.6	127.5	103.8	72.0
December, 1923	50.6	81.8	71.9	93.5	130.2	105.2	74.8
June, 1924	44.0	78.3	72.4	84.8	129.4	109.9	71.9
December, 1924	53.0	76.2	72.2	88.7	125.7	107.1	74.8
June, 1925	57.7	76.0	72.0	85.3	122.8	111.0	77.3
December, 1925	66.2	76.2	72.2	90.9	122.1	111.6	81.2
June, 1926	62.2	73.0	71.3	89.8	112.8	111.2	78.4
December, 1926	63.0	72.5	70.6	87.3	110.5	112.3	78.6
June, 1927	56.7	71.3	69.9	82.2	106.9	112.9	75.3
December, 1927	56.7	68.4	68.0	85.5	104.8	112.3	74.5
June, 1928	52.9	68.1	66.7	82.0	103.2	118.7	73.7
December, 1928	51.9	68.3	65.7	87.3	102.0	120.9	73.9
June, 1929	53.8	67.5	65.2	80.7	100.1	119.8	73.8
December, 1929	56.7	67.2	63.4	86.1	99.4	120.2	75.1
June, 1930	47.2	65.9	62.4	80.9	95.6	127.0	71.6
Boston, Mass.:							
December, 1915	1.3	6.6	1.1	1.1	8.4	1.6	1.6
December, 1916	18.0	21.9	.1	10.5	26.3	15.7	15.7
December, 1917	45.8	47.5	1.1	29.2	58.4	38.1	38.1
December, 1918	74.9	117.5	2.8	56.6	137.6	62.0	70.6
June, 1919	67.9	137.9	5.1	55.0	153.7	64.8	72.8
December, 1919	80.8	192.4	12.2	63.2	198.7	81.1	92.3
June, 1920	105.0	211.1	16.2	83.6	233.7	91.8	110.7
December, 1920	74.4	192.7	25.8	106.0	226.4	96.6	97.4
May, 1921	41.9	150.3	29.8	97.8	171.2	96.2	74.4
December, 1921	50.4	106.3	33.8	98.5	136.9	93.0	70.2
June, 1922	32.5	96.7	34.4	92.5	134.2	89.5	59.6
December, 1922	44.9	92.0	36.7	99.9	133.6	87.8	65.1
June, 1923	39.7	93.0	40.2	88.8	150.5	89.2	63.5
December, 1923	48.8	92.6	47.0	97.0	148.2	93.0	69.4
June, 1924	37.9	91.2	50.7	90.7	136.9	88.0	63.2
December, 1924	47.8	89.1	52.4	93.7	138.1	85.9	67.3
June, 1925	44.5	88.9	52.9	90.4	136.9	86.3	65.8
December, 1925	60.6	87.8	54.0	107.2	136.7	91.0	74.7
June, 1926	51.5	85.9	53.2	94.4	133.1	91.0	69.4
December, 1926	56.6	85.3	53.5	98.7	129.6	92.3	71.9
June, 1927	50.5	82.9	53.2	92.5	125.5	91.5	68.1
December, 1927	54.4	80.2	52.1	96.5	124.4	91.3	69.5
June, 1928	45.0	80.2	52.2	90.4	123.1	90.2	64.8
December, 1928	50.5	80.4	51.6	96.7	118.4	94.4	68.2
June, 1929	47.1	79.0	50.7	87.7	118.4	92.1	65.4
December, 1929	53.2	79.0	49.2	94.3	118.0	92.9	68.4
June, 1930	43.7	78.3	47.1	88.7	113.6	92.5	63.1

¹ Decrease.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Buffalo, N. Y.:							
December, 1915.....	2.4	9.0	1.2	1.3	7.1	3.5	3.5
December, 1916.....	30.1	29.6	4.7	9.3	24.1	24.4	24.4
December, 1917.....	64.1	58.5	9.4	23.5	50.2	51.1	51.1
December, 1918.....	87.8	123.1	20.7	49.3	106.3	76.0	80.9
June, 1919.....	82.9	140.7	28.0	51.9	118.1	78.7	84.2
December, 1919.....	94.7	190.8	29.0	55.7	165.4	90.3	102.7
June, 1920.....	115.7	210.6	46.6	69.8	199.7	101.9	121.5
December, 1920.....	78.5	168.7	48.5	74.9	189.2	107.4	101.7
May, 1921.....	37.7	131.6	61.1	73.9	151.3	107.8	80.3
December, 1921.....	50.8	96.5	61.7	79.7	124.7	103.0	76.8
June, 1922.....	38.5	83.6	64.7	78.8	108.0	97.9	68.6
December, 1922.....	48.8	81.4	64.9	115.7	112.8	97.5	73.9
June, 1923.....	41.6	83.4	70.0	119.1	127.9	100.5	74.1
December, 1923.....	51.9	83.8	71.8	120.4	127.5	102.5	78.6
June, 1924.....	39.5	81.7	76.3	116.6	121.0	101.9	73.9
December, 1924.....	51.6	79.9	76.8	117.9	121.0	100.9	77.8
June, 1925.....	52.0	80.3	79.1	115.5	119.5	107.7	79.7
December, 1925.....	66.5	79.8	79.5	117.9	118.2	107.9	84.8
June, 1926.....	60.9	76.7	78.1	127.3	113.6	110.6	82.8
December, 1926.....	63.6	74.6	77.4	127.1	110.2	112.5	83.6
June, 1927.....	56.7	72.2	75.8	126.9	106.2	111.4	79.8
December, 1927.....	55.9	71.2	73.7	128.5	106.0	116.3	80.2
June, 1928.....	51.6	71.7	72.7	126.7	105.4	117.8	78.7
December, 1928.....	54.9	72.4	69.4	128.5	104.2	117.8	79.6
June, 1929.....	51.6	71.2	67.0	123.2	104.4	118.9	78.8
December, 1929.....	57.9	71.0	66.5	127.0	104.2	119.1	80.0
June, 1930.....	47.2	70.0	65.0	122.9	105.0	120.4	76.0
Chicago, Ill.:							
December, 1915.....	2.7	7.5	1.1	1.9	5.9	3.0	3.0
December, 1916.....	25.2	24.2	.7	6.6	20.0	19.5	19.5
December, 1917.....	53.4	50.6	1.4	19.3	47.5	41.8	41.8
December, 1918.....	78.7	138.9	2.6	37.1	108.9	58.7	72.2
June, 1919.....	73.3	157.1	8.0	35.7	126.9	61.7	74.5
December, 1919.....	93.1	224.0	14.0	40.1	176.0	84.3	100.6
June, 1920.....	120.0	205.3	35.1	62.4	215.9	87.5	114.6
December, 1920.....	70.5	158.6	48.9	23.5	205.8	96.5	93.3
May, 1921.....	41.9	122.7	78.2	65.3	162.4	98.5	78.4
December, 1921.....	48.3	74.3	83.9	69.4	133.7	94.5	72.3
June, 1922.....	41.6	73.0	87.4	55.4	108.5	87.9	65.0
December, 1922.....	44.8	67.5	88.9	65.6	120.4	86.7	68.0
June, 1923.....	45.1	72.2	92.1	54.9	133.1	87.7	69.6
December, 1923.....	52.5	76.0	95.4	59.3	132.9	88.1	73.7
June, 1924.....	47.9	72.6	104.4	53.0	122.2	90.7	72.6
December, 1924.....	56.2	67.8	105.8	56.1	121.9	90.7	75.3
June, 1925.....	61.4	65.8	105.6	53.9	118.1	93.9	77.1
December, 1925.....	69.4	65.3	104.4	65.8	118.5	93.9	80.6
June, 1926.....	67.2	62.7	99.5	55.4	112.4	94.3	77.8
December, 1926.....	69.6	61.9	96.7	64.4	109.2	95.7	79.0
June, 1927.....	68.2	58.7	93.9	57.2	105.2	96.7	77.1
December, 1927.....	62.4	53.8	90.0	59.2	104.4	99.7	74.3
June, 1928.....	59.4	53.3	86.8	51.2	96.0	98.5	71.5
December, 1928.....	62.4	52.1	83.6	56.5	97.2	101.7	73.1
June, 1929.....	63.0	51.5	80.3	50.7	97.4	101.7	72.3
December, 1929.....	67.3	49.2	77.2	56.7	97.0	102.9	73.7
June, 1930.....	56.9	47.7	75.1	51.5	92.1	104.7	69.1
Cleveland, Ohio:							
December, 1915.....	1.4	2.0	.1	.3	4.7	1.4	1.4
December, 1916.....	26.4	18.0	.9	10.0	19.7	19.1	19.1
December, 1917.....	54.3	43.7	11.3	26.8	47.8	42.9	42.9
December, 1918.....	79.4	102.6	16.5	51.9	102.4	67.1	71.4
June, 1919.....	79.7	125.2	21.8	47.9	117.0	74.7	77.2
December, 1919.....	92.9	171.2	39.9	62.9	165.5	85.9	98.2
June, 1920.....	118.7	185.1	47.3	90.3	186.5	117.9	120.3
December, 1920.....	71.7	156.0	80.0	94.5	176.8	134.0	107.3
May, 1921.....	37.4	124.0	88.1	89.6	133.6	129.6	87.5
December, 1921.....	40.9	85.8	81.2	103.8	100.8	123.2	78.8
June, 1922.....	34.6	72.4	69.6	102.2	87.8	110.7	68.9
December, 1922.....	41.1	70.9	74.0	116.3	104.8	109.4	72.9
June, 1923.....	42.1	77.6	73.8	151.6	129.6	108.1	77.1
December, 1923.....	43.6	79.6	78.7	147.0	129.3	113.1	79.6
June, 1924.....	37.2	78.4	77.7	142.6	118.0	112.7	75.9
December, 1924.....	46.2	72.9	78.6	144.1	113.4	112.1	78.1
June, 1925.....	53.8	71.9	76.8	143.9	111.9	112.3	80.4
December, 1925.....	58.3	71.9	75.6	168.8	113.4	111.5	82.7
June, 1926.....	60.0	70.7	71.6	162.3	106.1	111.9	81.9

¹ Decrease.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Cleveland, Ohio—Continued.							
December, 1926.....	58.7	68.3	71.8	170.7	105.3	112.7	81.5
June, 1927.....	56.6	67.5	67.5	163.9	103.2	115.9	80.2
December, 1927.....	55.1	66.0	66.3	164.2	97.9	115.9	79.0
June, 1928.....	50.6	65.7	61.8	161.3	90.2	118.1	76.3
December, 1928.....	48.5	63.9	60.5	163.7	89.2	119.0	75.4
June, 1929.....	50.6	63.9	9.5	160.5	89.4	117.9	75.7
December, 1929.....	47.0	63.2	58.9	163.1	88.8	118.3	74.3
June, 1930.....	42.0	61.6	56.4	160.2	87.7	125.3	73.3
Detroit, Mich.:							
December, 1915.....	4.1	2.3	2.1	1.6	8.7	3.5	3.5
December, 1916.....	26.5	18.9	17.5	9.9	24.5	22.3	22.3
December, 1917.....	59.7	46.7	32.6	30.2	50.4	49.9	49.9
December, 1918.....	82.5	113.8	39.0	47.6	107.3	72.6	78.0
June, 1919.....	86.4	125.2	45.2	47.6	129.3	80.3	84.4
December, 1919.....	99.5	181.8	60.2	57.9	172.6	100.1	107.9
June, 1920.....	132.0	208.8	68.8	74.9	206.7	141.3	136.0
December, 1920.....	75.6	176.1	108.1	104.5	184.0	144.0	118.6
May, 1921.....	41.1	134.1	101.4	83.6	134.0	140.1	93.3
December, 1921.....	47.3	92.5	91.1	77.5	96.8	130.7	82.4
June, 1922.....	43.1	81.4	86.9	75.2	76.0	121.3	75.3
December, 1922.....	44.8	79.9	92.1	95.5	81.1	121.5	78.2
June, 1923.....	46.7	84.0	96.9	87.3	105.7	124.2	81.7
December, 1923.....	47.5	85.3	107.5	84.9	105.3	128.4	84.7
June, 1924.....	45.5	82.3	105.6	81.8	103.4	127.2	82.8
December, 1924.....	49.7	76.1	103.8	82.7	98.1	125.4	82.2
June, 1925.....	60.6	75.2	98.7	78.9	94.1	124.7	84.5
December, 1925.....	68.1	74.8	97.7	101.1	93.7	122.5	87.8
June, 1926.....	65.7	73.4	95.5	76.4	91.8	122.5	84.7
December, 1926.....	63.8	71.0	95.5	86.8	88.7	121.6	84.1
June, 1927.....	65.2	68.3	89.6	73.4	86.8	125.1	82.7
December, 1927.....	57.6	64.1	84.1	76.9	84.7	128.3	79.0
June, 1928.....	53.5	64.3	79.1	73.2	81.4	128.8	76.4
December, 1928.....	55.7	62.5	78.2	77.0	81.2	131.1	77.4
June, 1929.....	59.2	62.5	77.3	72.8	81.2	130.4	78.1
December, 1929.....	57.9	61.7	77.8	77.5	79.4	130.6	77.8
June, 1930.....	47.6	59.6	73.2	67.2	76.7	131.1	72.3
Houston, Tex.:							
December, 1915.....	¹ 1.0	2.7	¹ 2.3	1.9	6.1	1.3	1.3
December, 1916.....	19.9	25.0	¹ 7.3	8.3	29.6	16.4	16.4
December, 1917.....	57.3	51.5	¹ 7.7	22.7	62.3	44.9	44.9
December, 1918.....	86.1	117.3	¹ 1.7	47.5	119.9	67.6	75.7
June, 1919.....	85.7	134.8	1.9	37.6	144.5	72.3	80.2
December, 1919.....	97.5	192.0	13.4	60.0	181.8	88.2	101.7
June, 1920.....	107.5	211.3	25.3	55.1	213.9	90.4	112.2
December, 1920.....	83.2	187.0	35.1	74.2	208.2	103.9	104.0
May, 1921.....	45.6	143.4	39.4	46.0	173.7	100.8	79.7
December, 1921.....	50.1	104.9	39.8	39.4	148.2	90.0	73.6
June, 1922.....	38.9	98.4	38.5	32.9	133.7	94.0	65.9
December, 1922.....	45.0	98.2	37.3	39.2	140.4	93.0	68.4
June, 1923.....	41.2	100.4	36.7	36.5	150.2	91.5	67.2
December, 1923.....	46.4	102.6	36.4	55.8	148.2	93.2	70.6
June, 1924.....	37.3	100.8	34.9	45.0	143.7	89.5	65.0
December, 1924.....	54.4	95.6	34.7	44.3	143.0	88.0	70.5
June, 1925.....	57.3	95.6	34.3	38.7	142.5	87.8	71.1
December, 1925.....	65.8	92.5	33.0	45.2	143.2	88.0	74.3
June, 1926.....	55.0	91.2	32.9	38.2	138.6	87.4	69.2
December, 1926.....	59.8	88.9	32.6	43.7	137.9	86.8	70.6
June, 1927.....	50.4	86.8	32.2	32.8	136.7	86.6	66.3
December, 1927.....	52.5	86.2	31.8	34.3	134.1	91.8	67.9
June, 1928.....	45.6	85.8	30.4	29.2	132.0	89.7	64.1
December, 1928.....	51.4	86.4	30.1	33.6	131.1	89.3	66.4
June, 1929.....	51.1	84.7	27.5	29.1	129.0	92.1	66.1
December, 1929.....	55.8	84.1	27.1	31.8	129.5	92.5	68.0
June, 1930.....	43.0	82.8	25.7	25.3	127.2	92.5	62.3
Jacksonville, Fla.:							
December, 1915.....	1.3	10.5	¹ 6.9	(²)	15.1	1.3	1.3
December, 1916.....	17.6	33.7	¹ 18.2	2.3	43.4	14.7	14.7
December, 1917.....	50.8	71.9	¹ 18.7	15.1	73.7	41.6	41.9
December, 1918.....	76.2	130.5	5.9	55.2	126.5	60.5	71.5
June, 1919.....	74.2	139.8	9.7	49.2	140.0	65.9	77.5
December, 1919.....	80.9	217.2	22.0	64.1	186.2	80.9	101.5
June, 1920.....	90.1	234.0	28.9	72.6	224.2	102.8	116.5
December, 1920.....	65.6	209.3	34.1	92.6	222.3	105.6	106.2
May, 1921.....	32.6	167.5	36.5	80.7	182.7	107.5	85.8

¹ Decrease.² No change.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Jacksonville, Fla.—Continued.							
December, 1921.....	40.6	117.9	38.3	68.9	134.9	99.3	75.1
June, 1922.....	30.6	99.9	35.3	58.9	115.3	95.5	65.7
December, 1922.....	34.8	99.3	35.1	65.7	127.1	94.7	67.8
June, 1923.....	32.0	101.1	34.3	63.6	137.9	95.3	67.7
December, 1923.....	39.9	104.5	33.4	75.1	139.4	96.6	71.9
June, 1924.....	30.2	102.7	33.3	72.1	132.9	95.0	67.3
December, 1924.....	40.0	94.6	33.5	72.9	132.4	99.1	70.4
June, 1925.....	41.8	94.0	33.5	69.3	134.0	99.3	70.9
December, 1925.....	58.3	93.6	55.3	87.1	135.6	105.3	81.7
June, 1926.....	53.4	93.4	66.6	95.3	134.7	105.5	81.8
December, 1926.....	53.5	90.9	69.9	91.2	128.1	105.7	81.3
June, 1927.....	45.0	88.0	57.2	87.8	126.0	104.5	75.7
December, 1927.....	41.3	85.4	51.2	84.0	124.6	104.5	73.0
June, 1928.....	36.4	85.0	32.3	74.4	119.2	105.1	68.3
December, 1928.....	40.0	84.6	27.4	78.9	119.6	105.1	69.1
June, 1929.....	37.4	83.9	19.8	77.1	117.8	105.1	66.9
December, 1929.....	40.8	82.4	13.2	75.0	113.9	101.0	65.8
June, 1930.....	31.9	80.4	3.2	70.6	110.5	102.4	61.0
Los Angeles, Calif.:							
December, 1915.....	¹ 4.1	2.8	¹ 2.7	4	6.3	¹ 1.9	¹ 1.9
December, 1916.....	4	14.3	¹ 2.5	2.3	23.1	7.7	7.7
December, 1917.....	33.4	45.0	1.6	10.4	56.4	28.9	28.9
December, 1918.....	61.8	109.1	4.4	18.3	118.5	52.0	58.0
June, 1919.....	60.7	123.3	8.7	18.6	134.2	59.1	65.1
December, 1919.....	71.0	167.6	26.8	35.3	175.5	76.9	85.3
June, 1920.....	90.8	184.5	42.6	53.5	202.2	86.6	101.7
December, 1920.....	62.7	166.6	71.4	53.5	202.2	100.6	96.7
May, 1921.....	33.2	127.4	85.3	52.7	156.6	96.8	78.7
December, 1921.....	38.4	94.3	90.1	52.7	143.2	99.6	76.4
June, 1922.....	30.6	81.3	95.6	39.1	128.8	103.8	72.5
December, 1922.....	39.4	78.0	94.8	35.6	138.1	101.2	74.5
June, 1923.....	36.2	82.5	97.7	33.7	153.6	100.8	75.1
December, 1923.....	42.1	83.0	100.9	34.1	152.0	104.2	78.8
June, 1924.....	35.2	81.4	99.4	33.6	136.1	105.4	75.1
December, 1924.....	38.8	80.4	93.3	34.4	137.7	104.2	75.4
June, 1925.....	44.1	79.0	83.6	34.0	133.9	108.9	76.9
December, 1925.....	48.7	77.7	73.7	34.4	133.7	110.6	77.4
June, 1926.....	39.9	75.7	67.4	34.1	126.7	104.7	71.2
December, 1926.....	44.7	75.2	61.7	34.8	123.8	105.7	72.2
June, 1927.....	40.4	74.0	59.9	61.0	120.4	108.2	71.5
December, 1927.....	40.4	71.6	57.7	56.8	118.6	108.0	70.6
June, 1928.....	34.9	71.4	54.1	56.5	110.7	107.2	67.4
December, 1928.....	44.7	70.5	49.8	51.5	108.4	110.9	71.0
June, 1929.....	41.2	69.3	45.2	50.6	106.5	111.1	68.9
December, 1929.....	40.9	69.3	43.7	51.4	105.9	111.7	68.7
June, 1930.....	30.9	68.1	39.8	45.6	103.6	110.4	63.8
Mobile, Ala.:							
December, 1915.....	¹ 1.0	2.0	¹ 1.9	(²)	4.1	¹ 1.4	¹ 1.4
December, 1916.....	19.9	9.0	¹ 4.3	8.8	15.3	13.8	13.8
December, 1917.....	57.3	38.8	¹ 3.6	27.1	42.8	43.2	43.2
December, 1918.....	80.6	86.0	11.2	57.1	108.3	72.4	71.4
June, 1919.....	83.6	94.0	11.9	66.6	113.9	75.3	76.6
December, 1919.....	98.4	123.7	29.6	75.6	153.3	87.0	94.5
June, 1920.....	110.5	137.4	34.6	86.3	177.9	100.3	107.0
December, 1920.....	73.5	122.2	53.6	122.3	175.4	100.7	93.3
May, 1921.....	39.1	90.6	53.3	102.1	140.7	96.9	70.8
December, 1921.....	42.4	57.7	49.9	98.2	116.9	94.3	63.6
June, 1922.....	33.2	49.7	47.7	84.4	97.8	87.5	55.3
December, 1922.....	39.1	50.8	43.8	96.4	97.9	91.0	58.8
June, 1923.....	37.7	51.8	42.5	93.3	114.0	89.8	58.6
December, 1923.....	44.7	55.4	42.6	98.1	114.8	91.3	62.6
June, 1924.....	33.4	54.3	41.4	91.4	109.3	93.7	58.0
December, 1924.....	49.7	53.4	40.9	90.2	107.2	94.3	63.9
June, 1925.....	50.3	52.0	40.1	85.6	104.3	95.5	63.9
December, 1925.....	59.0	49.4	40.4	89.1	103.7	102.0	68.5
June, 1926.....	53.1	49.5	39.7	94.6	100.8	102.2	66.2
December, 1926.....	58.0	48.8	40.5	97.7	96.4	102.2	68.1
June, 1927.....	52.0	47.6	40.4	90.4	97.2	102.4	65.2
December, 1927.....	51.1	47.6	41.9	92.1	97.2	104.0	65.5
June, 1928.....	45.4	47.5	41.0	90.0	93.3	107.3	63.5
December, 1928.....	49.6	48.1	41.6	92.1	92.3	108.3	65.7
June, 1929.....	47.5	47.2	41.0	84.0	87.9	108.1	64.0
December, 1929.....	49.0	47.2	40.6	85.8	87.3	108.3	64.8
June, 1930.....	39.6	46.8	38.9	81.2	85.6	108.1	60.3

¹ Decrease.² No change.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
New York, N. Y.:							
December, 1915.....	1.3	4.8	10.1	10.1	8.4	2.0	2.0
December, 1916.....	16.3	22.3	1.1	11.0	27.6	14.9	14.9
December, 1917.....	55.3	54.2	2.6	19.9	56.5	44.7	44.7
December, 1918.....	82.6	131.3	6.5	45.5	126.5	70.0	77.3
June, 1919.....	75.3	151.6	13.4	45.4	136.6	75.1	79.2
December, 1919.....	91.0	219.7	23.4	50.6	172.9	95.8	103.8
June, 1920.....	105.3	241.4	32.4	60.1	205.1	111.9	119.2
December, 1920.....	73.5	201.8	38.1	87.5	185.9	116.3	101.4
May, 1921.....	42.5	159.5	42.2	95.9	156.5	117.6	81.7
December, 1921.....	51.8	117.8	53.7	90.7	132.0	116.9	79.3
June, 1922.....	40.0	103.0	55.7	89.0	118.3	112.8	70.7
December, 1922.....	49.5	98.3	56.7	95.7	121.6	111.6	74.2
June, 1923.....	44.4	100.7	59.4	89.1	130.3	110.8	72.6
December, 1923.....	52.0	102.7	62.4	94.2	131.5	113.5	77.3
June, 1924.....	41.1	100.7	64.5	88.8	121.4	115.0	72.5
December, 1924.....	50.0	97.7	67.1	93.3	119.4	116.7	76.5
June, 1925.....	48.9	97.5	67.8	91.0	110.6	116.9	75.8
December, 1925.....	62.6	95.9	69.5	126.0	110.4	118.2	83.2
June, 1926.....	56.0	94.7	69.5	95.9	106.6	117.3	78.6
December, 1926.....	59.1	93.7	70.2	96.1	106.0	117.5	80.0
June, 1927.....	54.0	92.9	70.2	92.2	102.5	119.0	77.8
December, 1927.....	57.5	91.4	70.2	96.0	102.9	118.8	79.1
June, 1928.....	47.5	90.3	69.3	94.4	97.8	118.6	74.4
December, 1928.....	53.0	88.4	68.6	96.3	96.4	118.8	76.3
June, 1929.....	50.6	87.8	67.6	92.0	96.2	121.4	75.5
December, 1929.....	54.9	85.9	66.1	95.1	95.4	122.9	77.1
June, 1930.....	43.7	85.5	65.1	85.7	90.5	123.3	71.7
Norfolk, Va.:							
December, 1915.....	.8	.8	.1	(¹)	.6	.6	.6
December, 1916.....	22.4	6.0	11.7	17.0	8.7	14.7	14.7
December, 1917.....	63.9	31.6	11.7	33.3	39.0	45.2	45.2
December, 1918.....	86.2	94.6	39.0	74.6	105.5	76.8	80.7
June, 1919.....	89.8	104.8	46.5	69.7	110.7	83.7	87.1
December, 1919.....	91.5	158.4	63.3	89.9	143.6	97.5	107.0
June, 1920.....	107.6	176.5	70.8	110.6	165.0	108.4	122.2
December, 1920.....	76.3	153.6	90.8	128.9	160.5	106.3	109.0
May, 1921.....	45.4	121.6	94.6	97.3	129.0	106.3	88.1
December, 1921.....	43.4	90.2	93.4	91.6	106.1	109.3	79.2
June, 1922.....	33.5	77.6	88.1	87.7	88.4	100.8	69.5
December, 1922.....	38.6	73.2	77.2	106.5	89.1	99.6	69.9
June, 1923.....	36.9	79.1	73.0	102.1	101.0	102.2	71.1
December, 1923.....	40.7	80.8	67.0	96.9	103.8	104.4	72.4
June, 1924.....	33.1	78.6	64.2	94.4	100.1	103.0	68.4
December, 1924.....	46.0	75.4	59.4	99.1	102.1	103.4	72.1
June, 1925.....	47.9	74.7	58.4	96.7	96.0	103.4	71.9
December, 1925.....	60.8	74.0	53.0	107.9	96.8	103.8	76.4
June, 1926.....	56.0	73.0	52.1	102.1	93.7	100.5	73.1
December, 1926.....	58.7	72.8	49.2	109.6	90.4	103.7	74.6
June, 1927.....	54.7	71.1	45.9	96.8	88.9	114.9	73.9
December, 1927.....	55.5	70.9	43.6	98.2	88.5	112.5	73.4
June, 1928.....	50.2	71.6	41.7	95.6	85.7	114.6	71.5
December, 1928.....	55.0	71.8	39.6	100.3	86.1	118.2	74.1
June, 1929.....	51.9	71.3	38.8	94.3	85.2	118.0	72.3
December, 1929.....	55.8	70.4	37.1	92.7	83.0	119.3	73.5
June, 1930.....	43.3	68.7	36.0	87.3	80.4	118.6	67.9
Philadelphia, Pa.:							
December, 1915.....	.3	3.6	1.3	1.8	6.9	1.2	1.2
December, 1916.....	18.9	16.0	1.7	5.4	19.9	14.7	14.7
December, 1917.....	54.4	51.3	2.6	21.5	49.8	43.8	43.8
December, 1918.....	80.7	11.2	8.0	47.9	107.7	67.5	73.9
June, 1919.....	75.5	135.9	11.3	43.3	117.8	71.2	76.2
December, 1919.....	87.2	190.3	16.7	51.3	162.8	88.6	96.5
June, 1920.....	101.7	219.6	28.6	66.8	187.4	102.8	113.5
December, 1920.....	68.1	183.5	38.0	96.0	183.4	122.3	100.7
May, 1921.....	37.8	144.7	44.2	85.6	135.5	119.2	79.8
December, 1921.....	43.9	104.6	48.1	92.0	101.6	116.2	74.3
June, 1922.....	38.1	89.5	49.6	85.7	90.0	112.3	68.2
December, 1922.....	43.4	87.6	52.9	93.0	96.9	110.7	70.7
June, 1923.....	42.7	87.6	58.1	80.9	110.8	112.4	72.1
December, 1923.....	45.1	88.2	66.9	102.2	111.6	112.0	74.7
June, 1924.....	39.3	85.5	72.4	91.7	102.3	110.7	71.5
December, 1924.....	46.4	84.4	75.3	94.8	100.5	117.6	76.1
June, 1925.....	51.3	83.8	76.0	87.0	98.9	117.6	77.6
December, 1925.....	62.0	83.6	77.1	100.5	97.9	117.6	82.6
June, 1926.....	56.6	82.5	77.1	98.3	93.7	120.6	80.6

¹ Decrease.² No change.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnish-ing goods	Miscel-laneous	All items
Philadelphia, Pa.—Continued.							
December, 1926.....	61.2	80.3	77.3	98.5	92.3	121.5	82.3
June, 1927.....	53.8	79.2	75.3	89.4	88.6	120.8	78.0
December, 1927.....	55.9	77.4	72.1	90.5	87.7	121.2	78.3
June, 1928.....	51.3	76.5	67.1	81.5	85.4	121.4	75.3
December, 1928.....	51.7	74.0	63.8	87.3	83.9	120.3	74.5
June, 1929.....	50.0	72.6	59.9	85.4	84.1	121.2	73.1
December, 1929.....	56.1	71.2	56.5	86.3	84.7	121.2	75.0
June, 1930.....	42.6	69.7	54.0	86.5	83.2	121.4	69.0
Portland, Me.:							
December, 1915.....	¹ 2.0	2.1	.2	.4	6.2	1.4	1.4
December, 1916.....	18.6	9.7	.6	11.4	20.9	13.8	13.8
December, 1917.....	49.8	32.8	2.4	28.9	43.5	38.0	38.0
December, 1918.....	86.8	85.8	2.5	67.7	110.8	65.6	72.2
June, 1919.....	80.6	103.8	5.7	58.4	126.4	72.1	74.3
December, 1919.....	91.9	148.5	10.7	69.8	163.7	83.2	91.6
June, 1920.....	114.5	165.9	14.5	83.9	190.3	89.4	107.6
December, 1920.....	78.7	147.8	20.0	113.5	191.2	94.3	93.1
May, 1921.....	46.7	116.3	23.1	96.8	152.2	94.1	72.1
December, 1921.....	54.8	88.1	26.6	99.5	123.6	91.2	69.6
June, 1922.....	39.9	76.7	24.8	96.1	108.1	88.2	59.7
December, 1922.....	49.1	74.8	30.7	94.7	114.2	88.0	64.1
June, 1923.....	45.3	77.3	27.3	94.9	129.7	88.0	63.3
December, 1923.....	52.3	76.7	31.7	100.0	130.2	89.3	66.9
June, 1924.....	44.1	75.4	27.4	96.2	126.7	87.9	62.4
December, 1924.....	52.4	75.0	28.8	99.6	126.0	87.2	66.0
June, 1925.....	52.2	75.0	25.5	95.8	126.0	87.8	65.3
December, 1925.....	64.5	74.0	24.4	100.3	126.9	87.6	70.3
June, 1926.....	58.7	71.7	23.7	100.5	121.7	88.4	67.3
December, 1926.....	63.3	70.3	23.8	102.9	120.8	88.6	69.2
June, 1927.....	59.4	67.6	23.6	98.6	118.8	88.6	66.8
December, 1927.....	60.0	66.8	23.0	102.2	118.4	89.0	67.0
June, 1928.....	54.2	66.5	21.5	98.4	112.5	88.8	63.8
December, 1928.....	57.0	64.8	20.9	102.4	112.3	97.3	66.6
June, 1929.....	54.3	65.8	19.8	94.1	112.3	97.3	64.8
December, 1929.....	55.7	65.6	19.8	101.9	112.1	97.1	65.8
June, 1930.....	45.9	65.4	19.9	96.9	111.9	97.1	61.5
Portland, Oreg.:							
December, 1915.....	¹ 3.8	3.0	¹ 10.9	¹ 1.0	2.9	¹ 3.1	¹ 3.1
December, 1916.....	9.8	15.8	¹ 19.6	3.4	18.0	6.1	6.1
December, 1917.....	42.2	44.4	¹ 22.2	20.2	54.5	31.2	31.2
December, 1918.....	70.6	96.6	12.3	30.9	109.0	57.9	64.2
June, 1919.....	67.1	115.5	20.2	31.3	122.1	62.3	69.2
December, 1919.....	81.6	142.1	27.7	42.3	145.1	71.6	83.7
June, 1920.....	107.1	158.6	33.2	46.9	183.9	79.7	100.4
December, 1920.....	60.9	122.1	36.9	65.9	179.9	81.1	80.3
May, 1921.....	26.0	91.2	42.9	67.1	148.0	81.1	62.2
December, 1921.....	33.1	65.3	43.3	59.4	121.9	80.0	58.3
June, 1922.....	26.5	53.2	43.3	50.3	101.9	78.5	52.1
December, 1922.....	34.3	54.9	43.6	65.7	102.9	79.4	56.1
June, 1923.....	29.5	61.3	42.5	61.3	109.8	75.8	54.6
December, 1923.....	35.1	61.8	42.7	67.1	109.0	79.6	57.8
June, 1924.....	28.5	61.1	43.3	55.5	102.2	73.0	52.8
December, 1924.....	36.1	59.2	42.9	62.4	102.2	74.4	55.8
June, 1925.....	40.6	57.6	40.9	52.2	98.6	73.0	55.8
December, 1925.....	43.2	57.0	40.1	60.0	100.6	73.0	56.9
June, 1926.....	38.6	56.5	37.9	50.9	95.2	74.2	54.6
December, 1926.....	40.6	54.0	33.5	61.9	90.7	76.6	55.1
June, 1927.....	39.2	53.2	30.3	56.9	87.8	76.4	53.7
December, 1927.....	37.5	51.1	26.9	65.7	86.1	77.1	52.8
June, 1928.....	36.6	50.8	20.9	51.6	80.5	76.4	50.5
December, 1928.....	41.8	49.4	16.4	63.0	80.1	78.0	52.4
June, 1929.....	41.4	48.4	11.0	51.4	79.7	77.3	50.7
December, 1929.....	43.7	47.8	8.2	61.8	81.0	77.7	51.6
June, 1930.....	34.2	44.8	5.4	49.7	78.6	86.6	49.1
San Francisco and Oakland, Calif.:							
December, 1915.....	¹ 4.3	2.5	¹ 1.7	¹ 1.1	6.0	¹ 1.7	¹ 1.7
December, 1916.....	9.6	14.5	¹ 2.5	4.6	21.7	8.3	8.3
December, 1917.....	35.9	43.6	¹ 4.0	14.4	48.2	28.6	28.6
December, 1918.....	66.2	100.0	¹ 3.9	30.1	103.4	50.5	57.8
June, 1919.....	63.3	134.6	¹ 3.5	28.9	116.6	61.0	65.6
December, 1919.....	74.2	170.4	4.7	41.3	143.8	74.7	87.8
June, 1920.....	93.9	191.0	9.4	47.2	180.1	79.6	96.0
December, 1920.....	64.9	175.9	15.0	66.3	175.6	84.8	85.1
May, 1921.....	33.3	140.9	21.7	63.3	143.9	84.4	66.7
December, 1921.....	40.4	106.3	25.8	65.3	113.9	86.8	63.6
June, 1922.....	31.1	90.7	29.4	59.5	104.4	83.7	56.8

¹ Decrease.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
San Francisco and Oakland, Calif.—							
Continued.							
December, 1922.....	38.8	85.4	30.0	52.5	105.4	84.2	58.8
June, 1923.....	34.2	92.1	33.4	42.6	116.7	79.4	57.6
December, 1923.....	42.3	94.4	36.0	48.8	116.9	81.2	62.1
June, 1924.....	35.0	91.5	38.0	49.9	113.4	73.2	57.3
December, 1924.....	42.1	90.5	39.4	53.5	114.7	72.7	60.1
June, 1925.....	47.6	90.5	40.1	54.3	115.1	72.9	62.2
December, 1925.....	53.3	89.7	40.0	50.8	115.7	74.6	64.7
June, 1926.....	44.3	88.4	39.6	48.5	105.6	75.3	60.7
December, 1926.....	48.3	85.6	39.5	51.0	104.6	75.3	61.7
June, 1927.....	45.4	83.7	38.7	47.1	103.8	77.8	60.6
December, 1927.....	46.1	82.4	37.3	48.6	103.4	79.2	60.7
June, 1928.....	41.5	82.9	35.7	45.9	102.0	79.6	58.8
December, 1928.....	48.0	83.4	33.5	47.5	99.0	83.2	61.7
June, 1929.....	45.1	82.8	31.9	43.7	97.8	83.4	60.1
December, 1929.....	48.7	81.5	30.4	40.3	97.4	82.5	60.8
June, 1930.....	40.4	77.9	28.1	28.7	100.6	80.9	55.9
Savannah, Ga.:							
December, 1915.....	1.3	.8	11.4	11.3	1.8	1.2	1.2
December, 1916.....	17.6	24.1	13.0	11.7	12.8	14.6	14.6
December, 1917.....	50.8	56.6	14.3	21.1	50.7	42.5	42.5
December, 1918.....	76.2	133.6	5.9	37.5	128.6	67.3	75.0
June, 1919.....	74.2	146.3	10.2	25.5	136.5	71.2	79.8
December, 1919.....	80.9	195.9	22.0	52.2	182.1	82.0	98.7
June, 1920.....	91.7	212.1	33.5	65.3	207.2	83.8	109.4
December, 1920.....	63.5	171.5	58.6	94.4	206.6	91.5	98.7
May, 1921.....	28.7	133.2	61.9	74.2	175.9	93.0	77.6
December, 1921.....	33.7	84.2	60.9	66.1	133.7	87.4	66.2
June, 1922.....	22.7	71.7	57.8	55.2	120.1	81.1	56.8
December, 1922.....	27.6	76.2	52.7	68.3	123.8	79.5	59.2
June, 1923.....	22.6	81.3	49.5	61.9	135.9	77.4	57.9
December, 1923.....	25.0	80.9	47.5	64.1	133.4	76.7	58.2
June, 1924.....	17.5	79.1	45.3	59.7	130.6	77.5	54.8
December, 1924.....	25.1	75.8	41.0	62.2	128.7	77.5	56.3
June, 1925.....	31.5	75.1	39.7	59.1	128.2	77.5	57.9
December, 1925.....	44.9	73.7	38.6	62.9	128.9	79.1	62.9
June, 1926.....	39.1	73.7	38.0	61.9	126.6	79.5	60.6
December, 1926.....	39.7	72.0	38.1	68.4	123.9	79.0	60.5
June, 1927.....	35.4	69.8	37.7	58.3	121.7	80.6	58.3
December, 1927.....	35.3	68.6	37.1	59.9	121.9	80.8	58.1
June, 1928.....	31.1	68.8	35.9	56.9	120.8	81.9	56.6
December, 1928.....	35.0	69.0	33.9	59.6	118.8	87.0	59.1
June, 1929.....	33.9	68.2	32.7	55.8	117.9	83.8	57.2
December, 1929.....	35.1	67.7	28.3	56.1	117.2	84.5	57.2
June, 1930.....	25.2	66.0	27.0	54.2	113.7	84.7	53.1
Seattle, Wash.:							
December, 1915.....	12.8	1.2	12.4	1.2	8.5	11.0	11.0
December, 1916.....	8.5	11.3	15.4	2.9	27.4	7.4	7.4
December, 1917.....	38.7	36.4	1.6	23.9	52.3	31.1	31.1
December, 1918.....	72.5	88.0	44.3	51.8	141.5	58.5	69.9
June, 1919.....	69.3	110.2	51.5	51.8	154.4	71.4	76.9
December, 1919.....	80.9	154.5	71.5	63.8	201.0	86.8	97.7
June, 1920.....	102.3	173.9	74.8	65.8	221.2	90.4	110.5
December, 1920.....	54.1	160.5	76.7	78.7	216.4	95.5	94.1
May, 1921.....	27.1	128.7	74.8	78.7	177.2	105.5	80.2
December, 1921.....	30.5	88.7	69.2	69.0	149.9	102.6	71.5
June, 1922.....	30.0	78.0	64.7	64.0	137.3	97.6	67.0
December, 1922.....	33.9	74.2	63.1	59.6	136.1	96.4	66.7
June, 1923.....	31.0	76.7	62.3	58.0	143.9	96.6	66.4
December, 1923.....	35.8	77.6	62.9	59.1	144.2	96.6	68.5
June, 1924.....	33.1	76.2	64.0	56.8	140.7	94.6	66.7
December, 1924.....	35.8	74.4	63.7	59.6	141.1	96.4	67.8
June, 1925.....	43.7	74.6	64.7	57.8	141.6	96.4	70.5
December, 1925.....	47.3	74.8	63.7	58.1	142.1	97.0	71.7
June, 1926.....	42.3	74.8	62.6	49.4	139.4	97.0	69.4
December, 1926.....	41.6	73.1	60.3	61.2	137.5	97.6	69.1
June, 1927.....	43.0	71.9	59.0	59.3	136.8	98.4	69.4
December, 1927.....	37.9	69.5	56.9	59.8	134.7	98.2	66.9
June, 1928.....	36.9	68.8	55.5	57.1	133.5	97.4	65.8
December, 1928.....	40.8	68.3	54.1	62.9	132.6	97.4	67.1
June, 1929.....	43.7	66.6	52.4	62.1	131.7	98.8	67.7
December, 1929.....	45.9	66.6	52.1	65.8	132.6	98.8	68.7
June, 1930.....	38.1	64.6	50.1	65.5	132.4	98.6	65.4

¹ Decrease.² The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 5.—CHANGES IN COST OF LIVING IN 19 CITIES, DECEMBER, 1914, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1914, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Washington, D. C.:							
December, 1915.....	0.6	3.7	¹ 1.5	(²)	6.3	0.4	1.0
December, 1916.....	15.7	23.2	¹ 3.7	7.3	30.5	15.3	14.6
December, 1917.....	61.1	60.1	¹ 3.4	24.9	72.1	44.3	47.3
December, 1918.....	90.9	112.6	¹ 1.5	40.9	127.4	55.9	73.8
April, 1919.....	84.6	100.5	¹ 1.4	41.8	126.0	57.4	71.2
November, 1919.....	93.3	165.9	5.4	42.8	159.3	62.7	87.6
June, 1920.....	108.4	184.0	15.6	53.7	196.4	68.2	101.3
December, 1920.....	79.0	151.1	24.7	68.0	194.0	73.9	87.8
May, 1921.....	47.4	115.9	28.8	57.1	149.0	72.0	67.1
December, 1921.....	51.1	87.1	30.4	49.9	122.4	75.8	63.0
June, 1922.....	44.3	77.5	31.4	44.5	108.1	73.7	57.6
December, 1922.....	49.2	74.8	32.6	55.1	112.6	72.0	59.5
June, 1923.....	48.8	78.9	33.9	51.2	129.0	72.5	60.9
December, 1923.....	52.3	81.2	34.3	47.0	128.8	74.9	63.2
June, 1924.....	43.7	78.9	35.7	42.9	124.5	75.0	59.2
December, 1924.....	53.6	75.8	36.7	44.9	125.2	76.5	63.1
June, 1925.....	57.2	75.4	37.7	39.8	119.8	76.5	64.0
December, 1925.....	65.6	73.5	40.3	48.7	115.0	75.4	67.3
June, 1926.....	63.3	73.3	38.6	41.7	112.6	75.0	65.5
December, 1926.....	66.3	70.9	37.4	45.7	107.5	75.0	66.0
June, 1927.....	55.0	69.2	36.4	39.3	104.4	73.6	60.5
December, 1927.....	57.9	67.0	33.8	40.3	103.2	73.8	60.8
June, 1928.....	55.5	67.0	32.7	38.8	102.2	73.6	59.7
December, 1928.....	58.2	65.2	31.0	41.0	99.4	73.8	60.2
June, 1929.....	58.4	64.4	30.5	38.0	100.0	74.0	60.0
December, 1929.....	57.4	62.3	30.0	39.7	100.2	74.3	59.2
June, 1930.....	49.1	60.5	29.7	36.2	100.4	73.8	55.5

¹ Decrease.² No change.

Table 6 shows the changes in the cost of living from December, 1917, to June, 1930, for 13 cities. The table is constructed in the same manner as the preceding one and differs from it only in the base period and in the length of time covered.

TABLE 6.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO JUNE, 1930

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Atlanta, Ga.:							
December, 1918.....	19.0	29.1	14.0	17.0	24.9	14.8	19.7
June, 1919.....	18.0	40.7	14.5	17.9	30.1	21.5	23.3
December, 1919.....	27.9	66.9	32.6	30.8	49.9	31.7	37.9
June, 1920.....	34.0	80.5	40.4	61.0	65.0	34.6	46.7
December, 1920.....	12.8	56.5	73.1	66.8	58.4	39.7	38.5
May, 1921.....	¹ 8.9	35.2	78.8	56.1	38.0	40.5	25.2
December, 1921.....	¹ 7.2	8.3	75.4	43.7	23.0	39.7	18.7
June, 1922.....	¹ 10.5	.4	68.1	39.1	15.2	34.5	13.7
December, 1922.....	¹ 8.9	2.8	62.7	57.6	17.4	34.1	15.1
June, 1923.....	¹ 10.3	5.9	61.4	42.7	23.9	32.8	14.2
December, 1923.....	¹ 6.3	6.9	62.2	39.3	23.5	33.3	16.0
June, 1924.....	¹ 10.2	5.7	60.1	32.0	20.4	33.8	13.6
December, 1924.....	¹ 5.5	4.9	56.9	33.1	20.4	33.7	14.9
June, 1925.....	¹ 1.2	4.5	55.5	26.2	19.9	34.9	16.2
December, 1925.....	6.5	4.3	49.3	34.7	18.8	35.6	19.0
June, 1926.....	4.5	3.9	44.4	36.6	17.4	34.0	17.3
December, 1926.....	4.3	2.9	42.1	46.0	15.5	33.9	17.4
June, 1927.....	4.1	2.1	41.5	31.7	14.6	33.9	16.2
December, 1927.....	1.3	.2	39.5	38.0	15.9	31.5	14.3
June, 1928.....	¹ 1.0	.2	38.9	31.8	15.2	35.6	13.9
December, 1928.....	2.9	.4	38.2	36.3	24.9	35.3	15.6
June, 1929.....	.3	.3	37.5	28.4	14.6	33.0	13.6
December, 1929.....	.1	1.6	35.9	31.6	14.1	34.2	13.5
June, 1930.....	¹ 7.9	¹ 2.8	32.8	² 11.6	11.2	31.8	7.9

¹ Decrease.² The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 6.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Birmingham, Ala.:							
December, 1918.....	17.7	23.9	8.1	22.8	19.4	13.8	17.0
June, 1919.....	18.3	29.8	12.8	31.9	20.2	16.3	19.8
December, 1919.....	26.5	57.6	34.9	39.8	45.1	26.8	34.3
June, 1920.....	36.4	66.4	40.3	55.3	55.6	28.7	41.9
December, 1920.....	11.9	45.1	68.5	74.2	48.1	30.4	33.3
May, 1921.....	¹ 9.1	24.8	77.4	54.3	32.0	33.8	22.1
December, 1921.....	¹ 8.5	¹ 4.4	70.9	44.1	12.0	35.5	16.2
June, 1922.....	¹ 13.1	¹ 6.1	67.0	25.0	3.3	30.4	10.7
December, 1922.....	¹ 9.9	¹ 1.7	62.3	49.9	8.9	29.6	13.2
June, 1923.....	¹ 9.9	1.8	63.1	40.7	17.8	28.5	13.6
December, 1923.....	¹ 6.6	3.8	67.9	50.2	19.7	27.2	16.0
June, 1924.....	¹ 12.6	3.2	68.6	40.5	14.3	27.2	13.1
December, 1924.....	¹ 3.1	1.6	68.6	45.7	14.9	27.3	16.8
June, 1925.....	¹ 1.9	1.5	68.3	33.8	15.5	27.2	16.9
December, 1925.....	4.5	¹ 3	68.0	41.4	15.5	27.8	19.2
June, 1926.....	1.5	¹ 9	66.5	41.0	13.5	26.9	17.5
December, 1926.....	1.8	¹ 1.9	65.8	51.3	12.4	26.9	17.8
June, 1927.....	¹ 3.1	¹ 3.1	64.5	39.6	11.2	26.4	14.8
December, 1927.....	¹ 1.3	¹ 4.1	61.7	45.9	14.1	28.5	15.7
June, 1928.....	¹ 4.7	¹ 4.3	59.4	37.1	13.9	28.2	13.7
December, 1928.....	¹ 2.2	¹ 4.2	54.8	43.4	12.3	27.2	14.2
June, 1929.....	¹ 3.9	¹ 4.3	50.8	35.5	10.6	26.1	12.3
December, 1929.....	¹ 2.8	¹ 5.0	40.8	38.8	10.5	27.2	11.8
June, 1930.....	¹ 8.9	¹ 5.9	35.9	33.2	9.3	26.4	8.2
Cincinnati, Ohio:							
December, 1918.....	15.3	33.8	.2	10.0	25.7	20.4	17.3
June, 1919.....	18.1	48.3	.8	5.6	30.5	21.8	21.1
December, 1919.....	22.9	84.2	12.8	11.0	51.1	40.3	35.2
June, 1920.....	38.7	96.7	13.6	26.9	75.5	47.6	47.1
December, 1920.....	10.3	73.5	25.0	34.1	66.7	53.4	34.1
May, 1921.....	¹ 7.4	49.0	27.6	15.7	39.7	52.3	21.0
December, 1921.....	¹ 8.3	13.9	28.5	42.4	22.3	47.3	15.6
June, 1922.....	¹ 8.9	4.9	31.0	35.2	15.8	44.0	12.8
December, 1922.....	¹ 10.4	5.5	35.2	61.0	17.2	42.7	13.7
June, 1923.....	¹ 9.3	8.8	40.7	51.9	24.3	42.8	15.7
December, 1923.....	¹ 6.7	9.2	45.6	53.0	26.2	43.3	17.3
June, 1924.....	¹ 10.2	6.4	49.3	39.3	23.2	46.9	16.7
December, 1924.....	¹ 8.3	1.5	50.1	44.5	23.2	52.3	17.8
June, 1925.....	¹ 9	1.2	51.2	61.1	23.4	55.0	22.5
December, 1925.....	3.9	¹ 1.1	51.8	70.4	21.3	49.9	23.7
June, 1926.....	2.7	¹ 1.2	54.8	62.2	17.7	50.5	22.3
December, 1926.....	3.1	¹ 1.7	55.9	83.6	16.9	50.5	23.6
June, 1927.....	3.9	¹ 2.3	56.8	66.7	16.1	50.0	23.3
December, 1927.....	¹ 1.0	¹ 3.9	57.9	66.9	16.6	50.0	21.3
June, 1928.....	¹ 5	¹ 3.9	57.1	61.1	15.4	49.7	21.0
December, 1928.....	.4	¹ 5.5	57.1	61.6	14.7	49.6	21.2
June, 1929.....	2.5	¹ 5.8	56.9	60.8	13.6	49.7	21.8
December, 1929.....	4.5	¹ 6.4	56.7	70.9	13.1	51.2	23.1
June, 1930.....	¹ 1.2	¹ 7.1	54.5	63.6	11.6	51.5	20.1
Denver, Colo.:							
December, 1918.....	20.0	40.1	12.8	8.1	22.6	14.8	20.7
June, 1919.....	20.7	53.2	21.8	8.4	31.3	17.7	25.3
December, 1919.....	26.0	82.1	33.5	19.6	46.3	32.3	38.2
June, 1920.....	41.5	96.8	51.9	22.3	60.2	35.4	50.3
December, 1920.....	7.9	78.3	69.8	47.1	58.9	38.8	38.7
May, 1921.....	¹ 13.1	53.9	76.9	37.5	42.5	42.8	26.9
December, 1921.....	¹ 8.8	27.7	82.6	39.7	27.9	43.1	24.5
June, 1922.....	¹ 14.2	15.3	84.8	32.8	20.4	38.1	18.8
December, 1922.....	¹ 9.0	16.6	86.9	40.7	21.2	37.6	21.6
June, 1923.....	¹ 11.5	16.9	85.4	30.4	26.1	37.1	19.9
December, 1923.....	¹ 8.7	17.9	88.9	37.2	27.0	36.8	22.1
June, 1924.....	¹ 13.5	16.1	84.4	19.7	23.8	35.1	17.8
December, 1924.....	¹ 7.8	15.1	84.0	25.4	24.2	35.6	20.2
June, 1925.....	¹ 5.3	14.5	82.5	27.0	24.8	35.6	21.1
December, 1925.....	¹ 1.3	13.1	78.5	37.4	25.2	35.6	22.5
June, 1926.....	¹ 3.8	12.4	71.9	25.3	24.2	35.1	19.7
December, 1926.....	¹ 3.0	11.8	65.5	38.1	23.5	36.6	20.4
June, 1927.....	¹ 2.8	10.1	61.2	20.8	22.9	36.1	18.4
December, 1927.....	¹ 6.9	8.9	58.3	32.9	21.2	34.2	16.6
June, 1928.....	¹ 8.6	8.4	55.8	26.9	20.5	33.4	14.9
December, 1928.....	¹ 6.3	8.2	54.1	39.3	19.8	33.8	16.3
June, 1929.....	¹ 7.4	8.0	52.3	¹ 19.0	17.4	38.8	15.6
December, 1929.....	¹ 6.8	7.9	51.1	29.2	16.0	38.7	16.1
June, 1930.....	¹ 11.9	7.0	49.4	22.6	15.3	38.0	13.0

¹ Decrease.² The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.

TABLE 6.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO JUNE, 1930—Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnish-ing goods	Miscel-laneous	All items
Indianapolis, Ind.:							
December, 1918.....	17.8	32.4	1.6	19.8	18.9	21.9	19.1
June, 1919.....	16.4	40.1	2.6	16.7	24.8	26.8	21.1
December, 1919.....	28.2	73.8	11.6	27.3	46.4	38.2	36.5
June, 1920.....	49.0	87.9	18.9	45.6	67.5	40.5	50.2
December, 1920.....	11.0	72.3	32.9	60.3	63.0	47.5	37.6
May, 1921.....	¹ 10.1	45.8	37.4	49.4	35.3	47.4	23.9
December, 1921.....	¹ 8.4	16.2	43.8	42.5	22.5	46.2	19.3
June, 1922.....	¹ 9.9	7.9	41.3	44.9	13.7	45.4	16.4
December, 1922.....	¹ 11.1	8.6	44.1	73.4	16.7	46.7	18.8
June, 1923.....	¹ 8.0	11.6	44.6	54.9	23.2	46.1	19.4
December, 1923.....	¹ 6.5	13.4	47.1	41.5	24.0	49.2	20.6
June, 1924.....	¹ 10.0	11.9	46.5	38.2	21.4	51.5	19.3
December, 1924.....	¹ 4.9	10.4	46.7	41.5	21.5	53.3	21.4
June, 1925.....	¹ 2.3	9.8	44.1	33.9	20.6	53.8	21.5
December, 1925.....	4.4	7.5	41.7	44.9	21.8	54.1	24.2
June, 1926.....	2.6	7.4	38.3	33.9	20.6	51.6	21.9
December, 1926.....	2.9	5.4	36.5	47.8	19.9	51.8	22.3
June, 1927.....	3.5	5.9	34.6	34.6	18.0	52.3	21.4
December, 1927.....	¹ 1.5	4.3	33.4	34.2	17.5	52.6	19.2
June, 1928.....	¹ 1.8	4.3	31.3	29.2	13.7	52.3	18.2
December, 1928.....	¹ 1.3	3.2	30.4	32.3	12.6	52.0	18.5
June, 1929.....	¹ 1.8	3.0	28.4	26.1	12.7	52.3	17.7
December, 1929.....	2.0	2.4	27.9	31.0	11.7	52.0	18.8
June, 1930.....	¹ 2.7	1.2	25.9	24.8	9.0	51.8	16.1
Kansas City, Mo.:							
December, 1918.....	17.3	40.7	5.4	18.0	31.1	15.6	19.6
June, 1919.....	15.1	44.8	6.7	9.6	37.9	20.8	20.6
December, 1919.....	24.5	89.9	26.0	27.5	61.8	31.5	38.2
June, 1920.....	44.9	104.5	29.4	35.2	73.0	37.1	51.0
December, 1920.....	10.2	76.3	63.9	55.1	68.7	40.3	39.5
May, 1921.....	¹ 8.3	52.3	65.0	43.3	50.0	40.4	27.3
December, 1921.....	¹ 6.6	24.1	69.7	42.6	26.2	37.6	22.5
June, 1922.....	¹ 13.5	15.9	59.4	36.3	11.6	32.3	15.0
December, 1922.....	¹ 12.0	14.6	61.4	40.2	12.1	33.3	16.2
June, 1923.....	¹ 12.5	14.5	53.7	36.1	22.5	33.8	15.3
December, 1923.....	¹ 10.2	15.2	56.8	36.7	22.6	36.2	17.2
June, 1924.....	¹ 12.7	13.3	49.5	34.5	16.8	35.3	14.3
December, 1924.....	¹ 7.7	12.0	46.2	32.9	16.1	34.3	15.3
June, 1925.....	¹ 3.9	11.4	40.6	32.8	15.6	36.4	16.3
December, 1925.....	2.0	9.2	39.5	32.3	14.1	36.3	18.0
June, 1926.....	.5	8.7	35.9	29.4	12.8	36.3	16.6
December, 1926.....	¹ 1.7	6.3	34.1	33.5	10.8	36.3	15.2
June, 1927.....	¹ 2.2	5.4	29.1	29.8	8.6	36.6	14.0
December, 1927.....	¹ 6.8	3.7	28.3	29.0	7.7	36.5	11.9
June, 1928.....	¹ 5.4	2.7	24.8	28.7	6.8	35.0	11.2
December, 1928.....	¹ 6.0	2.9	23.8	26.8	5.6	37.8	11.3
June, 1929.....	¹ 5.3	2.4	21.1	26.3	5.1	37.0	11.0
December, 1929.....	¹ 2.2	1.8	20.1	23.9	3.4	36.9	11.7
June, 1930.....	¹ 8.6	1.5	19.4	24.0	2.1	36.9	9.0
Memphis, Tenn.:							
December, 1918.....	20.3	27.7	(³)	26.8	25.4	16.1	18.3
June, 1919.....	22.7	38.3	8.2	23.4	30.7	20.9	23.3
December, 1919.....	28.4	66.2	23.1	34.1	53.2	28.3	35.2
June, 1920.....	38.8	77.5	35.9	49.7	67.1	38.8	46.4
December, 1920.....	7.0	59.0	66.2	105.4	53.9	43.2	39.3
May, 1921.....	¹ 14.2	36.1	79.7	64.5	29.9	42.9	26.7
December, 1921.....	¹ 11.2	15.3	77.3	67.1	14.7	42.3	23.2
June, 1922.....	¹ 15.1	7.3	74.8	56.3	6.8	37.8	18.2
December, 1922.....	¹ 14.9	6.7	72.5	68.5	12.2	37.4	18.6
June, 1923.....	¹ 13.9	9.8	72.3	62.8	23.2	38.1	19.9
December, 1923.....	¹ 11.2	11.0	72.5	65.0	23.4	37.3	21.0
June, 1924.....	¹ 17.1	9.5	72.4	66.2	18.6	36.3	18.2
December, 1924.....	¹ 9.2	6.4	68.6	66.2	20.1	37.4	20.4
June, 1925.....	¹ 7.1	5.9	66.4	55.7	20.1	38.5	20.5
December, 1925.....	¹ 2.0	4.7	60.4	71.4	20.1	37.8	22.0
June, 1926.....	¹ 4.1	4.0	57.0	63.3	18.2	36.7	19.9
December, 1926.....	¹ 5.7	3.9	53.9	80.1	17.1	37.7	19.9
June, 1927.....	¹ 7.2	1.9	50.2	79.4	16.0	36.6	18.1
December, 1927.....	¹ 8.0	1.6	47.3	76.0	16.0	36.6	17.3
June, 1928.....	¹ 8.1	1.5	46.3	60.0	16.0	36.9	16.4
December, 1928.....	¹ 4.9	.2	43.7	68.8	14.8	37.7	17.5
June, 1929.....	¹ 6.0	1.1	42.6	63.6	13.8	38.5	16.8
December, 1929.....	¹ 5.1	1.1	40.6	55.3	13.9	38.6	16.5
June, 1930.....	¹ 10.6	1.6	39.6	58.9	13.3	39.6	14.7

¹ Decrease.² The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.³ No change.

TABLE 6.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO JUNE, 1930—
Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Minneapolis, Minn.:							
December, 1918.....	17.7	33.5	¹ 1.1	14.7	18.1	12.3	15.8
June, 1919.....	21.4	40.1	¹ 2.0	13.4	23.6	15.9	18.8
December, 1919.....	34.1	67.0	8.0	22.4	45.7	25.4	32.7
June, 1920.....	50.0	76.7	10.7	36.9	65.5	31.3	43.4
December, 1920.....	13.0	63.6	36.8	60.3	65.8	37.6	35.7
May, 1921.....	¹ 7.9	41.0	39.0	52.8	43.3	37.9	23.7
December, 1921.....	¹ 4.9	14.3	46.7	50.2	27.9	37.4	20.7
June, 1922.....	¹ 6.0	7.9	44.6	43.7	21.4	32.6	17.3
December, 1922.....	¹ 5.3	6.5	46.8	47.0	22.5	32.6	18.0
June, 1923.....	¹ 6.4	9.2	42.5	44.9	29.7	32.8	17.4
December, 1923.....	¹ 4.7	9.3	47.4	45.6	28.2	32.0	18.8
June, 1924.....	¹ 7.9	7.4	44.7	42.2	22.8	31.3	16.2
December, 1924.....	¹ 4.3	5.6	44.9	43.2	23.3	31.2	17.3
June, 1925.....	¹ 1.8	4.9	40.7	40.9	23.2	31.1	17.6
December, 1925.....	6.9	4.4	41.0	42.6	22.1	30.6	20.3
June, 1926.....	5.8	3.4	36.8	45.9	19.9	32.8	19.6
December, 1926.....	2.3	2.5	36.1	46.6	17.0	33.5	18.2
June, 1927.....	4.1	1.1	30.2	44.3	15.1	32.6	17.2
December, 1927.....	⁽¹⁾	¹ 1.4	29.9	45.6	14.9	33.0	15.4
June, 1928.....	1.6	¹ 1.1	27.2	45.2	12.3	34.6	15.8
December, 1928.....	.7	¹ 1.5	27.5	44.6	10.5	34.5	15.2
June, 1929.....	1.8	¹ 1.8	25.6	41.9	10.5	36.7	15.4
December, 1929.....	3.9	¹ 2.8	25.2	44.3	10.9	36.6	16.2
June, 1930.....	¹ 1.0	¹ 3.5	23.6	46.2	10.6	36.3	14.1
New Orleans, La.:							
December, 1918.....	16.6	36.8	⁽¹⁾	19.7	23.8	15.9	17.9
June, 1919.....	17.4	48.8	.1	20.8	30.0	17.5	20.7
December, 1919.....	21.1	83.2	10.8	24.7	57.7	35.1	33.9
June, 1920.....	28.6	94.9	12.9	36.3	75.9	42.8	41.9
December, 1920.....	10.7	69.4	39.7	41.5	63.9	57.1	36.7
May, 1921.....	¹ 10.7	45.0	46.7	29.2	47.7	58.2	23.8
December, 1921.....	¹ 9.3	24.9	57.9	40.4	28.5	60.2	22.7
June, 1922.....	¹ 12.8	15.6	58.5	33.4	17.9	58.6	18.9
December, 1922.....	¹ 10.5	16.2	54.7	38.5	26.2	51.9	18.6
June, 1923.....	¹ 13.2	17.8	55.5	32.9	34.8	50.1	17.7
December, 1923.....	¹ 8.7	19.5	57.4	37.1	33.6	50.3	20.2
June, 1924.....	¹ 14.6	18.6	57.1	32.9	29.2	48.7	16.8
December, 1924.....	¹ 5.7	17.2	57.2	36.2	30.0	48.7	20.6
June, 1925.....	¹ 5.7	17.0	57.0	33.7	27.0	48.3	20.2
December, 1925.....	.9	15.9	56.8	34.2	27.5	47.9	22.7
June, 1926.....	¹ 5.2	15.7	57.0	39.6	26.6	46.7	20.1
December, 1926.....	¹ 1.6	15.6	56.2	43.8	25.0	47.4	21.7
June, 1927.....	¹ 3.9	13.4	56.0	38.5	21.8	48.6	20.3
December, 1927.....	¹ 4.9	13.4	56.2	38.5	21.8	48.5	19.9
June, 1928.....	¹ 6.8	13.1	55.9	34.5	17.9	46.1	18.2
December, 1928.....	¹ 3.2	13.1	54.8	28.4	17.9	46.8	19.5
June, 1929.....	¹ 4.3	12.6	53.6	¹ 14.9	15.9	45.9	17.8
December, 1929.....	¹ 1.8	12.6	51.3	18.1	15.7	45.8	18.8
June, 1930.....	¹ 9.8	12.0	49.2	12.4	14.8	46.5	14.8
Pittsburgh, Pa.:							
December, 1918.....	18.8	35.9	7.6	9.2	26.3	16.3	19.8
June, 1919.....	16.2	45.3	13.5	9.4	34.1	16.7	21.8
December, 1919.....	25.1	82.8	15.5	9.8	63.1	28.3	36.2
June, 1920.....	36.5	91.3	34.9	31.7	77.4	41.2	49.1
December, 1920.....	14.3	75.4	35.0	64.4	78.1	46.3	39.3
May, 1921.....	¹ 8.8	50.7	55.5	59.8	58.2	48.6	27.7
December, 1921.....	¹ 5.6	23.6	55.3	66.2	31.6	48.0	22.8
June, 1922.....	¹ 12.2	17.3	56.7	66.0	20.1	43.4	17.8
December, 1922.....	¹ 5.4	13.1	56.7	72.8	25.1	42.8	20.1
June, 1923.....	¹ 5.4	14.8	60.4	68.4	29.4	44.1	21.3
December, 1923.....	¹ 2.1	14.9	60.7	76.9	29.0	43.1	22.9
June, 1924.....	¹ 7.5	13.7	71.8	74.8	29.0	45.3	22.4
December, 1924.....	¹ 2.4	11.2	72.1	92.2	29.8	46.6	24.9
June, 1925.....	¹ 1.2	11.1	75.2	91.2	27.7	46.7	26.0
December, 1925.....	6.2	10.5	75.2	89.9	28.0	46.8	28.5
June, 1926.....	2.6	7.8	75.4	88.0	25.3	46.1	26.2
December, 1926.....	5.6	5.5	75.0	91.9	24.3	46.4	27.2
June, 1927.....	2.2	5.2	74.7	88.8	22.6	46.3	25.4
December, 1927.....	1.4	3.8	74.4	88.0	21.9	46.2	24.8
June, 1928.....	¹ 3.8	4.2	72.8	85.6	15.9	46.9	22.3
December, 1928.....	2.1	3.5	71.6	86.0	16.4	46.9	24.4
June, 1929.....	.6	2.9	68.3	85.6	15.1	48.1	23.2
December, 1929.....	1.2	2.1	67.1	86.0	14.6	47.5	23.2
June, 1930.....	¹ 5.6	1.5	64.9	85.1	13.5	47.9	19.9

¹ Decrease.² The decrease is due primarily to the change in consumption and price accompanying the change from manufactured to natural gas.³ No change.

TABLE 6.—CHANGES IN COST OF LIVING IN 13 CITIES, DECEMBER, 1917, TO JUNE 1930—
Continued

City and date	Per cent of increase over December, 1917, in expenditure for—						
	Food	Clothing	Rent	Fuel and light	House-furnishing goods	Miscellaneous	All items
Richmond, Va.:							
December, 1918.....	20.5	33.8	1.0	11.8	26.3	9.0	17.9
June, 1919.....	20.6	42.3	3.6	11.4	28.6	13.5	20.6
December, 1919.....	23.1	78.6	9.8	18.7	55.9	24.0	32.0
June, 1920.....	36.1	93.6	12.5	36.1	75.4	32.4	43.8
December, 1920.....	11.9	69.0	25.9	62.2	70.0	36.0	33.3
May, 1921.....	¹ 7.4	43.8	29.4	47.1	48.8	38.7	20.2
December, 1921.....	¹ 2.9	21.2	34.1	46.8	33.0	38.4	18.3
June, 1922.....	¹ 7.8	12.9	34.5	33.4	27.6	34.7	13.2
December, 1922.....	¹ 6.3	10.6	35.3	54.2	29.4	33.5	14.4
June, 1923.....	¹ 7.2	12.5	35.7	52.7	40.0	33.9	14.9
December, 1923.....	¹ 4.8	12.9	39.4	61.2	40.5	35.4	17.1
June, 1924.....	¹ 11.3	11.9	39.5	49.1	37.8	35.8	13.5
December, 1924.....	¹ 3.3	8.9	41.3	47.9	38.5	35.7	16.5
June, 1925.....	¹ 2.4	8.6	41.4	44.2	38.2	36.0	16.7
December, 1925.....	4.8	8.4	40.4	53.6	39.2	39.1	20.8
June, 1926.....	1.6	8.1	39.6	51.0	38.1	40.8	19.7
December, 1926.....	.9	7.0	36.0	61.4	36.7	40.8	19.3
June, 1927.....	¹ 1.2	5.8	34.0	51.9	35.6	40.9	17.4
December, 1927.....	¹ 2.9	5.3	31.1	54.2	35.3	40.9	16.4
June, 1928.....	¹ 3.8	5.0	30.6	43.9	33.8	41.0	15.3
December, 1928.....	¹ 3.1	5.4	28.9	47.5	32.7	40.9	15.7
June, 1929.....	¹ 5.0	4.2	28.3	42.0	32.4	40.2	14.2
December, 1929.....	¹ 3.4	4.2	27.0	44.7	31.3	41.0	14.9
June, 1930.....	¹ 8.0	3.3	26.5	38.5	30.0	40.4	12.3
St. Louis, Mo.:							
December, 1918.....	18.0	32.4	2.7	4.8	21.8	14.5	16.7
June, 1919.....	16.1	39.3	3.8	3.7	32.5	15.7	17.9
December, 1919.....	26.2	78.1	16.8	8.2	52.9	30.3	34.2
June, 1920.....	46.2	89.7	29.8	19.6	73.1	37.6	48.9
December, 1920.....	8.8	70.0	42.4	42.6	70.2	43.2	35.4
May, 1921.....	¹ 10.1	43.8	52.5	30.9	43.5	42.1	23.1
December, 1921.....	¹ 11.6	17.2	63.8	33.4	19.2	40.6	18.5
June, 1922.....	¹ 12.1	7.9	65.7	32.3	12.8	33.2	15.1
December, 1922.....	¹ 9.5	6.3	68.0	48.9	14.9	33.4	17.0
June, 1923.....	¹ 11.5	9.0	74.6	30.8	29.8	33.4	17.7
December, 1923.....	¹ 7.5	9.6	79.5	32.1	30.5	35.8	20.6
June, 1924.....	¹ 11.4	8.6	83.4	21.6	26.2	35.7	18.8
December, 1924.....	¹ 6.5	7.9	83.4	24.6	27.4	35.8	20.7
June, 1925.....	¹ 2.5	7.4	85.2	19.5	28.0	36.6	22.4
December, 1925.....	3.4	6.9	85.4	26.9	27.9	37.0	25.0
June, 1926.....	2.8	6.8	84.7	18.3	27.1	36.6	24.1
December, 1926.....	2.0	7.0	83.2	38.9	22.7	36.6	24.5
June, 1927.....	1.2	4.4	81.0	34.0	22.3	36.5	23.2
December, 1927.....	¹ 2.3	3.4	78.3	34.3	23.3	36.9	21.4
June, 1928.....	¹ 3.5	3.1	76.3	18.9	21.6	37.2	19.9
December, 1928.....	¹ 2.2	2.5	74.2	23.1	19.5	38.7	20.4
June, 1929.....	¹ 4	1.7	71.8	22.5	17.8	38.4	20.5
December, 1929.....	¹ 5	.8	69.2	33.4	16.2	44.2	21.7
June, 1930.....	¹ 6.7	(¹)	66.0	21.8	16.9	44.6	18.3
Scranton, Pa.:							
December, 1918.....	21.3	34.4	.5	24.7	27.0	21.4	21.9
June, 1919.....	18.1	49.6	6.2	25.7	35.6	24.9	25.0
December, 1919.....	26.9	82.1	2.4	31.5	48.9	34.7	37.1
June, 1920.....	41.4	97.7	17.2	43.5	62.8	47.9	51.5
December, 1920.....	17.8	76.5	18.5	67.3	62.0	50.4	39.1
May, 1921.....	¹ 4.0	54.3	41.5	62.8	48.6	54.6	28.2
December, 1921.....	4.1	29.1	44.6	67.1	30.7	52.4	26.3
June, 1922.....	¹ 6.7	24.2	52.8	68.0	24.2	49.9	20.9
December, 1922.....	¹ 2.1	20.7	53.6	68.6	28.5	49.3	22.4
June, 1923.....	¹ 5.1	21.7	59.0	65.2	34.7	51.4	22.4
December, 1923.....	.2	23.2	60.8	75.3	34.9	51.7	25.8
June, 1924.....	¹ 8.7	22.2	67.6	68.9	31.6	53.7	22.4
December, 1924.....	¹ 1.6	21.1	68.6	75.7	34.6	53.7	25.8
June, 1925.....	1.4	20.3	71.0	70.3	33.9	54.8	27.0
December, 1925.....	9.6	20.2	70.5	99.8	33.9	55.4	32.0
June, 1926.....	4.7	19.5	71.4	77.8	34.4	55.9	29.0
December, 1926.....	6.7	18.3	72.4	78.5	33.7	55.9	29.8
June, 1927.....	4.2	17.2	73.1	71.4	32.4	55.7	28.2
December, 1927.....	5.0	16.3	73.4	75.3	32.1	55.9	28.5
June, 1928.....	2.4	16.2	71.7	69.0	30.1	56.2	26.9
December, 1928.....	4.3	15.3	71.7	72.2	29.3	57.8	27.8
June, 1929.....	2.9	15.2	68.1	65.0	26.5	57.5	26.3
December, 1929.....	6.5	13.7	63.9	67.6	26.0	57.3	27.3
June, 1930.....	¹ 8	13.5	60.5	60.2	26.0	57.3	23.5

¹ Decrease.² No change.

Cost of Living in the United States and in Foreign Countries¹

THE trend of cost of living in the United States and in various foreign countries since 1913 is shown by the index numbers in the following tables. Table 1 contains general cost of living index numbers, while Tables 2, 3, 4, and 5 show changes in the cost of food, clothing, fuel and light, and rent, respectively.

Caution should be observed in the use of these figures, since not only are there differences in the base periods and in the number and kind of articles included, and the number of markets represented, but also there are radical differences of method in the construction of the index numbers. The number of countries included in the five tables varies according to the information available. Several countries publish a general index and an index number for food only, while others omit clothing and in some instances also rent.

¹ Preceding articles on this subject appeared in the Labor Review for December, 1922, July, 1923, January and July, 1924, January and July, 1925, January, 1926, February, 1927, August, 1928, February and August, 1929, and February, 1930.

TABLE 1.—INDEX NUMBERS OF COST OF LIVING IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913, TO DECEMBER 1929

Country--	United States	Canada	Belgium	Czecho-slovakia	Den-mark	Finland	France	Ger-many	Ireland	Italy
Number of localities.	32	60	59	Prague	200	21	Paris	71	200	Milan
Commodities included	Food, clothing, fuel and light, rent, house furnishings, etc.	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, taxes, etc.	Food, clothing, fuel, rent, taxes, etc.	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries	Food, clothing, fuel and light, rent, sundries
Computing agency	Bureau of Labor Statistics	Department of Labor	Min-istry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Com-mission for Study of Cost of Living	Federal Statistical Bureau	Department of Industry and Commerce	Municipal Administration
Base period	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	January-June, 1914	1913-14	July, 1914	January-June, 1914
1913	100	100								
1914	103	103		100	100	100	100	100	100	100
1915	105	107			116					114
1916	118	124			136					146
1917	142	143			155					197
1918	174	162			182					285
1919	199	176			211		238			327
1920	200	190			262		341			442
1921	174	161	100		237	1172	307			541
1922	170	157	90		199	1157	302		185	501
1923	173	150	109	690	204	1147	334	142	180	494
1924			125	692	214	1170			193	527
Dec	173	156	137	707		1217	377	135		573
1925			133	721	219	1212			188	611
Dec	178	160	143	703		1197	421	141		649
1926			174	710	184	1183				654
Dec	176	157	199	735		1197	545	144	182	657
1927			204	739	176	1207				
Dec	172	157	207	734		1243	498	151	171	531
1928										
Jan		157	209	734	176	1216		151	177	532
Feb		156	206	732		1206		151		533
Mar		156	203	730		1214	507	151		531
Apr		156	204	734	176	1212		151	170	531
May		155	202	736		1207		151		526
June	170	155	204	734		1219	519	151		530
July		155	205	746	176	1236		153	173	526
Aug		157	206	754		1258		154		522
Sept		157	209	749		1249	519	152		526
Oct		158	212	726	172	1254		152	176	528
Nov		158	217	721		1262		152		534
Dec	171	158	216	725		1260	531	153		538
1929										
Jan		158	216	727	173	1242		153	177	541
Feb		157	217	730		1232		154		544
Mar		157	216	736		1229	547	157		561
Apr		156	214	728	174	1219		154	173	551
May		156	214	726		1210		154		542
June	170	156	213	726		1215	556	153		544
July		156	216	743	173	1223		154	174	542
Aug		159	221	733		1232		154		537
Sept		159	225	717		1230	535	154		540
Oct		160	229	716	172	1236		154	179	545
Nov		160	229	718		1228		153		546
Dec	171	160	228	7105		1207	565	153		549
1930										
Jan		161	226	7106	170	1181		152	179	549
Feb		160	228	7106		1165		150		543
Mar		159	232	7104		1154	565	149		538
Apr		157	226	7103	167	1134		147	168	534
May		157	224	7103		1115		147		529
June	167	156		7105						

1 December.

2 July.

3 January-June.

4 October, 1913; January, April, and June, 1914.

5 April-June.

6 Quarter ending with month.

7 In gold.

TABLE 1.—INDEX NUMBERS OF COST OF LIVING IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929—Continued

Country..	Nether-lands	Norway	Poland	Sweden	Swit-zerland	United King-dom	South Africa	India	Austra-lia	New Zealand
Number of localities..	Amster-dam	30	Warsaw	49	33	630	9	Bombay	30	25
Commod-ities in-cluded..	All com-modities	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent, sundries	Food, clothing, fuel, light, rent	Food, clothing, fuel, light, rent, sundries	Food, fuel, light, rent, sundries	Food, clothing, fuel, light, rent	Food, gro-ceries, rent	Food, clothing, fuel, light, rent, sundries
Comput-ing agen-cy.....	Bureau of Statis-tics	Central Statis-tical Office	Central Statis-tical Office	Board of Social Welfare	Federal Labor Office	Minis-try of Labor	Office of Census and Statis-tics	Labor Office	Bureau of Census and Statis-tics	Census and Statis-tics Office
Base pe-riod.....	1911-1913	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	1911	July, 1914
1913.....									108	
1914.....		* 100	100	* 100	* 100	* 100	100	* 100	111	* 100
1915.....		* 117				* 125	105		126	107
1916.....		* 146		* 139		* 148	112		130	116
1917.....	* 142	* 190		* 166		* 180	122		129	129
1918.....	* 177	* 253		* 219	204	* 203	131	154	134	143
1919.....	* 205	* 275		* 257	222	* 208	145	175	148	157
1920.....	* 222	* 302		* 270	224	* 252	179	183	175	178
1921.....	* 190	* 302		* 236	200	* 219	162	173	167	177
1922.....	* 176	* 255		* 190	164	* 184	135	164	156	160
1923.....	* 178	* 239		* 174	164	* 169	131	154	168	158
1924.....				* 171	169	* 170	133	157	166	160
Dec.....	181	267		* 176	168	* 173	133	160	* 165	
1925.....					167	* 177	131	155	* 172	162
Dec.....	177	236		* 172	162	* 170			* 176	163
1926.....			115		161	* 179	129	156	* 174	163
Dec.....	168	216		* 169	160	* 166			* 174	162
1927.....			121		162	169	132	151	* 177	161
Dec.....	170	197								
1928:										
Jan.....		197	120	171	161	168	132	154		161
Feb.....		197	118		161	166	131	148		
Mar.....	169	196	119		160	164	132	145	* 175	
Apr.....		196	121	171	160	164	133	144		162
May.....		196	121		160	164	133	147		
June.....	170	195	122		161	165	132	146	* 175	
July.....		196	123	173	161	165	131	147		161
Aug.....		195	122		161	165	131	146	* 173	
Sept.....	169	187	122		161	165	131	145		
Oct.....		186	123	172	162	166	131	147		162
Nov.....		185	125		162	167	131	147	* 173	
Dec.....	168	184	125		162	168	131	148		
1929:										
Jan.....		183	125	170	161	167	131	149		161
Feb.....		183	128		161	165	131	149	* 180	
Mar.....	169	182	125		159	166	132	148		161
Apr.....		181	125	171	160	162	132	147		
May.....		181	125		161	161	132	147	* 180	
June.....	169	181	123		161	160	131	148		161
July.....		182	123	169	162	163	131	149	* 180	
Aug.....		184	123		163	164	131	149		161
Sept.....	167	182	123	170	163	165	130	149		
Oct.....		182	124		162	167	130	150	* 180	
Nov.....		182	125		162	167	129	150		
Dec.....	167	180	126							
1930:										
Jan.....		179	121	167	161	166	129	147		159
Feb.....		179	118		160	164	129	145		
Mar.....	163	177	117		159	161	129	142		
Apr.....		177	117	165	158	157	129	141		159
May.....		176	116		158	155				
June.....		177				154				

* December.

* July.

* Quarter ending with month.

* June.

* September.

TABLE 2.—INDEX NUMBERS OF **COST OF FOOD** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929

Country..	United States	Canada	Belgium	Czecho-slovakia	Den-mark	Fin-land	France	Ger-many	Ireland	Italy
Number of	51	60	59	Prague	200	21	Paris	71	200	Milan
Comput-ing agen-cy.....	Bureau of Labor Statistics	Depart-ment of Labor	Minis-try of Labor and Indus-try	Office of Statis-tics	Depart-ment of Statis-tics	Central Statis-tical Office	Com-mission for Study of Cost of Living	Federal Statis-tical Bureau	Depart-ment of in-dustry and Com-merce	Munic-ipal Admin-istration
Base pe-riod.....	1913	1913	1921	July, 1914	July, 1914	Janu-ary-June, 1914	Janu-ary-June, 1914	1913-14	July, 1914	Janu-ary-June, 1914
1913.....	100	100								
1914.....	¹ 105	¹ 108		² 100	² 100	² 100	² 100	⁴ 100	² 100	³ 100
1915.....	¹ 105	¹ 111								116
1916.....	¹ 126	¹ 138								149
1917.....	¹ 157	¹ 167								205
1918.....	¹ 187	¹ 186								320
1919.....	¹ 197	¹ 201					⁵ 260			359
1920.....	¹ 178	¹ 202					⁵ 344			455
1921.....	¹ 150	¹ 150	100			¹ 1230	⁵ 323			559
1922.....	¹ 147	¹ 142	² 87		² 184	¹ 1122	⁵ 316		² 185	522
1923.....	¹ 150	¹ 146	² 105	769	² 188	1079	⁵ 346	¹ 166	² 182	500
1924.....	146		² 124	787		1093			² 185	528
Dec.....	152	144	140	810		1160	⁶ 389	146		579
1925.....	157		² 134	827	² 210	1147			² 188	622
Dec.....	166	157	147	796		1138	⁶ 437	146		660
1926.....	161		² 185		² 159	1108			² 174	655
Dec.....	162	152	208	840		1110	⁶ 574	150		631
1927.....	155		² 210		² 153	1115			² 166	
Dec.....	156	152	211	844		1171	⁶ 504	153		513
1928:										
Jan.....	155	152	210	845	152	1126		152	175	514
Feb.....	152	150	207	842		1112		151		518
Mar.....	151	149	201	838		1123	⁶ 521	151		516
Apr.....	152	148	202	844	152	1119		151	162	516
May.....	154	147	199	847		1113		151		513
June.....	153	146	203	843		1126	⁶ 544	152		520
July.....	153	147	204	858	153	1155		154	166	513
Aug.....	154	151	206	871		1191		156		506
Sept.....	158	152	208	861		1174	⁶ 536	153		513
Oct.....	157	154	213	821	146	1183		152	171	515
Nov.....	157	154	219	813		1194		152		527
Dec.....	156	154	218	820		1186	⁶ 555	153		533
1929:										
Jan.....	155	154	217	815	147	1156		153	173	539
Feb.....	154	152	217	821		1141		156		541
Mar.....	153	153	215	830		1135	⁶ 578	159		570
Apr.....	152	150	212	815	150	1118		154	164	553
May.....	153	149	210	812		1104		154		537
June.....	155	149	208	817		1103	⁶ 590	154		541
July.....	158	150	212	843	149	1116		156	166	538
Aug.....	160	158	220	825		1131		155		528
Sept.....	161	159	225	796		1128	⁶ 577	154		534
Oct.....	160	159	229	791	146	1137		154	173	541
Nov.....	160	160	229	794		1123		153		543
Dec.....	158	161	227	⁷ 117		1090	⁶ 589	152		548
1930:										
Jan.....	155	162	224	⁷ 117	145	1048		150	172	546
Feb.....	153	161	221	⁷ 116		1022		148		537
Mar.....	150	159	212	⁷ 113		1006		145		527
Apr.....	151	153	204	⁷ 113		975		143	156	520
May.....	150	152	201	⁷ 112		945		142		519
June.....	148	151								

¹ December.² July.³ January-June.⁴ October, 1913; January, April, and June, 1914.⁵ April-June.⁶ Quarter ending with month.⁷ In gold.

TABLE 2.—INDEX NUMBERS OF **COST OF FOOD** IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929—Continued

Country..	Nether-lands	Norway	Poland	Sweden	Switzer-land	United King-dom	South Africa	India	Austra-lia	New Zea-land
Number of localities..	Amster-dam	30	War-saw	49	33	630	9	Bom-bay	30	25
Computing agency.....	Bureau of Statistics	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Office of Census and Statistics	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period.....	1911-1913	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	1914	July, 1914	July, 1914	July, 1914
1914.....		¹ 100	100	² 100	² 100	² 100	100	² 100	² 100	² 100
1915.....		¹ 123					107		² 131	112
1916.....		¹ 153		¹ 152			111		² 130	119
1917.....	² 148	¹ 203					124		² 126	128
1918.....	¹ 181	¹ 271		² 258			125		² 131	139
1919.....	¹ 215	¹ 290		² 318			136		² 147	146
1920.....	¹ 240	¹ 319		² 287			178		² 164	168
1921.....	¹ 201	¹ 295		² 231	213	² 220	¹ 128	² 174	² 161	164
1922.....	¹ 171	¹ 231		² 178	163	² 180	¹ 118	² 160	² 148	142
1923.....	¹ 179	¹ 217		² 158	165	² 162	¹ 118	² 148	² 164	143
1924.....				² 155	172	² 162			² 148	148
Dec.....	181	274			175	180	121	156	148	150
1925.....				² 168	169	² 167			² 156	151
Dec.....	172	221	125		167	174	116	151	155	154
1926.....				² 156	160	² 161			² 159	150
Dec.....	161	184	142		159	169	117	154	158	149
1927.....				148	158	² 159				145
Dec.....	167	171	147		160	163	119	149	155	146
1928:										
Jan.....		170	143	152	159	162	119	151	154	147
Feb.....		170	138		158	159	118	146	152	145
Mar.....	166	171	140		157	155	118	142	153	145
Apr.....		171	142	152	156	155	119	140	154	144
May.....		172	142		156	154	120	144	154	146
June.....	169	171	143		156	156	118	142	154	147
July.....		173	144	156	157	157	116	143	152	147
Aug.....		170	143		156	156	115	142	150	146
Sept.....	166	164	142		157	156	115	141	150	147
Oct.....		163	144	154	158	157	115	142	150	149
Nov.....		161	148		158	159	115	144	150	150
Dec.....	164	161	147		158	160	115	145	152	152
1929:										
Jan.....		158	146	150	157	159	115	146	161	149
Feb.....		157	153		157	156	115	146	161	148
Mar.....	163	158	146		156	157	117	146	160	146
Apr.....		156	144	151	154	150	118	145	162	147
May.....		156	144		154	149	119	143	160	148
June.....	165	156	139		155	147	118	144	161	147
July.....		157	139	148	155	149	116	145	160	146
Aug.....		161	137		156	153	115	146	161	147
Sept.....	160	160	137		158	154	114	146	162	147
Oct.....		160	139	150	158	156	113	147	165	147
Nov.....		159	142		157	159	112	147	164	147
Dec.....	162	157	144		157	159	112	148	155	147
1930:										
Jan.....		156	131	145	155	157	112	145	153	146
Feb.....		154	125		154	154	111	143	151	145
Mar.....	152	152	122		153	150	111	139		144
Apr.....		152		140	152	143	113	138		
May.....		151			150	140	113	137		
June.....		151				138				

¹ December.² July.³ Quarter ending with month.⁴ June.

TABLE 3.—INDEX NUMBERS OF COST OF CLOTHING IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929

Country...	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Number of localities.	32	60	59	Prague	100+	21	Paris	71	Milan
Computing agency--	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau	Municipal Administration
Base period--	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	January-June, 1914	1913-14	January-June, 1914
1913	100	100							
1914	¹ 101	¹ 103		² 100	² 100	³ 100	³ 100	⁴ 100	² 100
1915	¹ 105	¹ 115			² 110				
1916	¹ 120	¹ 136			² 160				
1917	¹ 149	¹ 158			² 190				
1918	¹ 205	¹ 185			² 260				² 284
1919	¹ 269	¹ 210			² 310		³ 296		² 221
1920	¹ 259	¹ 232			² 355		³ 485		² 692
1921	¹ 184	¹ 177	100		² 248	¹ 1107	³ 353		² 512
1922	¹ 172	¹ 162	² 99		² 217	¹ 1090	³ 315		610
1923	¹ 176	¹ 164	² 113	963	² 239	1065	³ 365	¹ 194	615
1924			² 133	964	² 267	1039			611
Dec	171	159	140	1006		1046	⁶ 440	173	667
1925			² 142	996	² 272	1043			655
Dec	169	159	144	995		1043	⁶ 510	173	702
1926			² 166	988	² 210	1042			699
Dec	167	157	199	982		1035	⁶ 616	158	709
1927			² 217	987	² 192	1036			
Dec	163	155	234	1013		1038	⁶ 581	166	591
1928:									
Jan		155	236	1013	196	1039		167	591
Feb		155	237	1013		1040		168	591
Mar		155	240	1020		1043	⁶ 581	169	591
Apr		157	241	1020	198	1043		170	591
May		157	240	1020		1044		170	566
June	163	157	242	1033		1048	⁶ 581	170	559
July		157	244	1040	198	1048		171	561
Aug		157	243	1040		1049		171	561
Sept		157	246	1032		1052	⁶ 591	171	561
Oct		157	247	1026	198	1052		172	558
Nov		157	248	1023		1054		172	555
Dec	162	157	250	1023		1055	⁶ 591	173	555
1929:									
Jan		157	251	1022	198	1055		173	555
Feb		157	252	1018		1055		173	555
Mar		157	253	1018		1055	⁶ 594	173	555
Apr		157	254	1025	196	1056		173	555
May		157	255	1025		1056		173	556
June	161	157	256	998		1055	⁶ 604	172	555
July		157	256	998	196	1055		172	555
Aug		156	258	998		1055		172	555
Sept		156	259	1006		1055	⁶ 604	171	555
Oct		156	261	1006	195	1055		171	554
Nov		156	262	1006		1055		171	550
Dec	160	156	262	⁷ 147		1051	⁶ 604	170	549
1930:									
Jan		156	263	⁷ 147	187	1051		170	549
Feb		155	263	⁷ 146		1051		169	549
Mar		155	263	⁷ 145		1050		169	549
Apr		155	263	⁷ 145		1046		168	549
May		155	262	⁷ 145		1046		167	509
June	159	155							

¹ December.² July.³ January-June.⁴ October, 1913; January, April, and June, 1914.⁵ April-June.⁶ Quarter ending with month.⁷ In gold.

TABLE 3.—INDEX NUMBERS OF COST OF CLOTHING IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929—Continued

Country.....	Norway	Poland	Sweden	Switzer- land	United King- dom	India	Australia	New Zealand
Number of localities..	30	Warsaw	49	33	100	Bombay	6	4
Computing agency...	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Minis- try of Labor	Labor Office	Bureau of Cen- sus and Statist- ics	Census and Statist- ics Office
Base period.....	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	July, 1914	Novem- ber, 1914	July, 1914
1914.....	¹ 100	100	¹ 100	² 100	¹ 100	¹ 100	¹ 100	² 100
1915.....					¹ 125		¹ 105	109
1916.....			¹ 160		¹ 155		¹ 117	127
1917.....			¹ 210		¹ 200		¹ 132	156
1918.....	¹ 312		¹ 285		¹ 310		¹ 145	179
1919.....	¹ 388		¹ 310		¹ 360		¹ 164	216
1920.....	¹ 336		¹ 390		¹ 430		¹ 181	245
1921.....	¹ 292		¹ 270	232	¹ 290	¹ 263	¹ 165	226
1922.....	¹ 247		¹ 210	186	239	247	¹ 140	188
1923.....	¹ 230		¹ 196	176	222	214	¹ 136	176
1924.....	¹ 246		¹ 192	179	226	226		168
December.....	¹ 257			181		214		
1925.....			¹ 191	181		¹ 192		164
December.....	¹ 225	154		179	225	176		
1926.....			¹ 187	172		¹ 160		155
December.....	¹ 191	148		166	218	148		
1927.....			¹ 180	162				149
December.....	¹ 172	169		162	215	154		
1928:								
January.....		169	182	162	215	152		
February.....		169		162	215	153		145
March.....	¹ 169	169		162	218	151		
April.....		169	184	166	218	153		
May.....		169		166	220	155		146
June.....	¹ 169	169		166	220	156		
July.....		169	185	166	220	158		
August.....		169		166	220	159		145
September.....	¹ 168	169		166	220	157		
October.....		169	186	169	220	156		
November.....		169		169	220	158		144
December.....	¹ 166	169		169	220	160		
1929:								
January.....		169	186	169	220	160		
February.....		169		169	220	160		144
March.....	¹ 164	169		169	220	159		
April.....		169	185	167	220	160		
May.....		169		167	218	160		144
June.....	¹ 164	169		167	218	159		
July.....		169	184	167	218	160		
August.....		169		167	218	160		143
September.....	¹ 163	169		167	218	159		
October.....		169	183	165	215	158		
November.....		171		165	215	154		142
December.....	¹ 161	171		165	215	151		
1930:								
January.....		171	183	165	215	150		
February.....		171		165	215	138		141
March.....	160	171		165	215	136		
April.....			181	160	213	137		
May.....				160	213	138		
June.....	159				213			

¹ December.² July.³ Quarter ending with month.¹ June.² November.³ September.

TABLE 4.—INDEX NUMBERS OF COST OF FUEL AND LIGHT IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929

Country.....	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	Germany
Number of localities..	32	60	59	Prague	110+	21	Paris	71
Computing agency...	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau
Base period.....	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	1914	1913-14
1913.....	100	100						
1914.....	¹ 101	¹ 98		² 100	² 100	² 100	100	⁴ 100
1915.....	¹ 101	¹ 96			² 130			
1916.....	¹ 108	¹ 109			² 175			
1917.....	¹ 124	¹ 125			² 220			
1918.....	¹ 148	¹ 146			² 275			
1919.....	¹ 157	¹ 148			² 292		⁵ 164	
1920.....	¹ 195	¹ 200			² 563		⁵ 296	
1921.....	¹ 181	¹ 172	100		² 401	¹ 1249	⁵ 308	
1922.....	¹ 186	¹ 177	² 92		² 301	¹ 1340	⁵ 287	
1923.....	¹ 184	¹ 172	² 120	1,041	² 282	1477	⁵ 317	¹ 177
1924.....			² 127	881	² 298	1473		
December.....	181	162	127	837		1439	⁵ 368	137
1925.....			² 113	829	² 252	1362		
December.....	187	166	114	807		1288	⁵ 402	142
1926.....			² 144		² 215	1271		
December.....	188	162	206	814		1389	⁵ 577	144
1927.....			² 186		² 201	1405		
December.....	183	158	177	819		1449	⁵ 555	146
1928:								
January.....		159	176	819	190	1440		146
February.....		159	170	819		1430		146
March.....		159	168	819		1438	⁵ 547	146
April.....		159	168	819	190	1436		145
May.....		158	168	819		1434		144
June.....	177	158	170	819		1436	⁵ 504	144
July.....		157	168	819	185	1424		144
August.....		157	169	819		1421		145
September.....		157	170	842		1429	⁵ 510	147
October.....		157	172	842	183	1426		150
November.....		157	174	842		1442		151
December.....	181	157	175	842		1452	⁵ 515	151
1929:								
January.....		158	175	842	185	1450		151
February.....		158	175	842		1446		152
March.....		158	184	842		1456	⁵ 535	153
April.....		158	187	842	190	1463		151
May.....		157	189	842		1460		149
June.....	175	157	194	842		1456	⁵ 539	149
July.....		157	198	842	185	1451		149
August.....		156	204	842		1446		150
September.....		156	206	842		1450	⁵ 569	151
October.....		157	210	854	185	1458		153
November.....		157	211	854		1453		153
December.....	179	157	213	⁷ 125		1455	⁵ 602	153
1930:								
January.....		157	214	⁷ 125	185	1452		153
February.....		157	215	⁷ 125		1447		154
March.....		157	211	⁷ 125		1433		154
April.....		157	207	⁷ 126		1423		152
May.....		156	206	⁷ 126		1416		150
June.....	173	156						

¹ December.² July.³ January-June.⁴ October, 1913; January, April, and June, 1914.⁵ April-June.⁶ Quarter ending with month.⁷ In gold.

TABLE 4.—INDEX NUMBERS OF COST OF FUEL AND LIGHT IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 TO DECEMBER, 1929—Continued

Country.....	Italy	Norway	Poland	Sweden	Switzer- land	United King- dom	India	New Zealand
Number of localities..	Milan	30	Warsaw	49	33	26-30	Bombay	4
Computing agency...	Municipal Administration	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Labor Office	Census and Statistics Office
Base period.....	January-June, 1914	July, 1914	1914	July, 1914	June, 1914	July, 1914	July, 1914	July, 1914
1914.....	100	100	100	100	100	100	100	100
1915.....								101
1916.....				168				110
1917.....				240				126
1918.....	220			286				136
1919.....	220			326				149
1920.....	611			372		230		178
1921.....	890			264	213	260	176	199
1922.....	524	301		188	181	202	168	183
1923.....	529	282		185	173	183	163	175
1924.....	519			182	165	183		174
December.....	515	307			161	185	167	
1925.....	520			177	153	180		174
December.....	533	232	106		150	180	165	
1926.....	523			168	146	195		177
December.....	565	279	108		146	250	166	
1927.....				176	142	170		177
December.....	422	177	113		141	170	156	
1928:								
January.....	420	177	113	168	139	170	156	
February.....	409	177	113		139	170	144	179
March.....	407	176	115		139	170	144	
April.....	407	174	116	166	138	168	145	
May.....	407	172	120		137	170	145	179
June.....	407	171	124		136	168	158	
July.....	407	169	121	164	136	165	158	
August.....	407	169	121		135	165	158	179
September.....	407	166	123		135	168	151	
October.....	407	163	130	162	135	170	144	
November.....	408	164	135		136	170	143	178
December.....	408	163	137		136	170	143	
1929:								
January.....	408	162	139	159	135	170	148	
February.....	425	164	141		135	173	143	175
March.....	425	166	140		135	173	143	
April.....	425	165	141	165	134	173	143	
May.....	425	162	141		134	170	143	175
June.....	425	162	141		134	170	143	
July.....	427	162	142	161	134	170	143	
August.....	427	163	142		134	170	143	175
September.....	434	162	143		134	170	143	
October.....	438	161	144	160	135	173	143	
November.....	438	161	149		135	175	143	175
December.....	453	161	151		135	175	143	
1930:								
January.....	453	161	152	160	135	175	143	
February.....	453	161	146		134	175	143	175
March.....	453	160	146		134	175	143	
April.....	460	159		160	133	175	143	
May.....	473	160			132	170	143	
June.....		159				170		

1 December.

2 July.

3 January-June.

4 June.

5 September.

TABLE 5.—INDEX NUMBERS OF COST OF RENT IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913, TO DECEMBER, 1929

Country...	United States	Canada	Belgium	Czechoslovakia	Denmark	Finland	France	Germany	Italy
Number of localities.	32	60	59	Prague	100+	21	Paris	71	Milan
Computing agency.	Bureau of Labor Statistics	Department of Labor	Ministry of Labor and Industry	Office of Statistics	Department of Statistics	Central Statistical Office	Commission for Study of Cost of Living	Federal Statistical Bureau	Municipal Administration
Base period...	1913	1913	1921	July, 1914	July, 1914	January-June, 1914	1914	1913-14	January-June, 1914
1913.....	100	100							
1914.....	¹ 100	¹ 97		² 100	² 100	² 100	100	⁴ 100	³ 100
1915.....	¹ 102	¹ 94			² 100				
1916.....	¹ 102	¹ 95			² 102				
1917.....	¹ 100	¹ 102			² 105				
1918.....	¹ 109	¹ 111			² 108				³ 100
1919.....	¹ 125	¹ 122			² 113		³ 100		³ 100
1920.....	¹ 151	¹ 142			² 130		³ 100		³ 108
1921.....	¹ 161	¹ 150	100		² 141	¹ 603	³ 110		³ 139
1922.....	¹ 162	¹ 155	² 99		² 155	¹ 795	³ 160		202
1923.....	¹ 167	¹ 158	² 134	206	² 160	901	³ 200	¹ 22	234
1924.....			² 140	213	² 170	1088			328
Dec.....	168	158	140	222		1165	⁶ 200	69	393
1925.....			² 152	236	² 178	1224			414
Dec.....	167	158	152	244		1266	⁶ 220	89	477
1926.....			² 158		² 185	1306			517
Dec.....	164	156	167	256		1334	⁶ 250	105	638
1927.....			² 183		² 189	1379			
Dec.....	160	156	184	261		1411	⁶ 275	125	400
1928:									
Jan.....		156	208	261	189	1411		126	400
Feb.....		156	209	261		1411		126	400
Mar.....		156	209	261		1411	⁶ 275	126	400
Apr.....		156	209	261	193	1411		126	400
May.....		157	209	261		1411		126	400
June.....	158	157	209	261		1430	⁶ 275	126	400
July.....		157	210	278	193	1430		126	401
Aug.....		157	210	278		1430		126	401
Sept.....		157	210	278		1430	⁶ 300	126	401
Oct.....		157	211	278	193	1430		126	408
Nov.....		157	212	278		1430		126	408
Dec.....	156	157	211	278		1430	⁶ 300	126	408
1929:									
Jan.....		157	222	306	193	1430		126	408
Feb.....		157	223	306		1430		126	408
Mar.....		157	223	306		1430	⁶ 300	126	408
Apr.....		157	223	306	196	1430		126	408
May.....		158	223	306		1430		126	408
June.....	154	158	224	306		1476	⁶ 300	126	408
July.....		158	224	317	196	1476		126	408
Aug.....		158	224	317		1476		126	408
Sept.....		158	224	317		1476	⁶ 350	126	408
Oct.....		158	225	322	196	1476		127	410
Nov.....		158	226	322		1476		127	410
Dec.....	152	158	227	⁷ 47		1476	⁶ 350	127	410
1930:									
Jan.....		158	227	⁷ 50	196	1476		127	410
Feb.....		158	405	⁷ 50		1476		127	410
Mar.....		158	405	⁷ 50		1476		127	410
Apr.....		158	406	⁷ 50		1476		128	410
May.....		158	406	⁷ 50		1476		128	410
June.....	150	158							

¹ December.² July.³ January-June.⁴ October, 1913; January, April, and June, 1914.⁵ April-June.⁶ Quarter ending with month.⁷ In gold.

TABLE 5.—INDEX NUMBERS OF COST OF RENT IN THE UNITED STATES AND IN FOREIGN COUNTRIES, 1913 to DECEMBER, 1929

Country.....	Norway	Poland	Sweden	Switzer- land	United Kingdom	India	Australia	New Zealand
Number of localities..	30	Warsaw	49	27	20-30	Bombay	6	25
Computing agency....	Central Statistical Office	Central Statistical Office	Board of Social Welfare	Federal Labor Office	Ministry of Labor	Labor Office	Bureau of Census and Statistics	Census and Statistics Office
Base period.....	July, 1914	January, 1914	July, 1914	June, 1914	July, 1914	July, 1914	1911	July, 1914
1914.....	¹ 100	100	¹ 100	¹ 100	¹ 100	¹ 100	108	² 100
1915.....								101
1916.....			¹ 108					101
1917.....			¹ 112					102
1918.....	¹ 111		¹ 112					105
1919.....	¹ 123		¹ 120					108
1920.....	¹ 147		¹ 130		¹ 118			114
1921.....	¹ 161		¹ 155	138	¹ 145	¹ 165	141	126
1922.....	¹ 171		¹ 163	146	¹ 153	¹ 165	149	136
1923.....	¹ 173		¹ 163	150	¹ 148	¹ 165	155	148
1924.....	¹ 176		¹ 178	155	¹ 147	¹ 165	162	160
December.....	176			158	¹ 147	172		
1925.....			¹ 186	162	¹ 172	¹ 172	165	169
December.....	179	41		163	148	172		
1926.....			¹ 188	166	¹ 150	¹ 147	168	180
December.....	179	44		167	150	172		
1927.....				172			168	187
December.....	181	49		174	151	172		
1928.....							174	
January.....		53	198	174	151	172		
February.....		53		174	151	172		188
March.....	179	53		174	151	172		
April.....		56	199	174	151	172		
May.....		56		177	151	172		189
June.....	179	56		177	151	172		
July.....		58	199	177	151	172		
August.....		58		177	151	172		190
September.....	179	58		177	151	172		
October.....		58	199	177	151	172		
November.....		58		177	150	172		190
December.....	179	58		177	150	172		
1929.....								
January.....		58	199	177	152	172		
February.....		58		177	152	172		190
March.....	175	58		177	152	172		
April.....		58	200	177	152	172		
May.....		58		181	153	172		191
June.....	175	58		181	153	172		
July.....		58	200	181	153	172		
August.....		58		181	153	172		192
September.....	175	58		181	153	172		
October.....		58	200	181	153	172		
November.....		58		181	152	172		191
December.....	175	58		181	152	172		
1930.....								
January.....		58	200	181	152	172		
February.....		58		181	152	172		190
March.....	174	58		181	152	172		
April.....			200	181	152	172		
May.....				185	153	172		
June.....	174				153			

¹ December.² July.³ June.⁴ September.

IMMIGRATION AND EMIGRATION

Statistics of Immigration for May, 1930

By J. J. KUNNA, CHIEF STATISTICIAN UNITED STATES BUREAU OF IMMIGRATION

THE monthly statistics for May, 1930, show a decrease in the inward movement of both aliens and citizens and an increase in the outward movement, as compared with the figures for the previous month. In May 36,940 aliens were admitted to the United States and 25,487 American citizens returned, as against 40,924 and 32,115, respectively, for April. Aliens departing for foreign countries during May numbered 21,414 and citizens 27,593, while in April 18,864 aliens and 26,707 citizens left the country. During the month of May a year ago 44,137 aliens were admitted and 22,766 departed; 27,169 citizens arrived and 31,505 departed.

In May last 689 aliens were refused admission to the United States, 537 having been turned back at points along the Canadian and Mexican borders and 152 at the seaports of entry. The principal cause for debarment was failure to present proper immigration visas, 658 having been rejected for this reason, while 31 were sent back for miscellaneous causes, principally likely to become a public charge and mental or physical defects. Aliens deported this month after having entered the country numbered 1,574, making a total of 15,608 deportations for the 11 months—July to May—of the current fiscal year.

Of the 36,940 aliens admitted during May, 19,414 were classified as immigrants and 17,526 as nonimmigrants. Europe supplied 13,317 immigrants, over four-fifths (82.8 per cent) of whom came from Germany, Irish Free State, Scotland, Italy, England, Poland, Northern Ireland, and the Scandinavian countries (Denmark, Norway, and Sweden). Canada contributed 4,216 immigrants this month, while Mexico sent 476, the West Indies 370, and other countries in the Western Hemisphere 576. Compared with the corresponding month a year ago, Mexican immigration shows the largest proportionate decrease. In May, 1929, about 11 out of every 100 immigrants entering the United States came from Mexico; in May, 1930, only 2 of every 100 immigrants admitted came from that country.

The principal nationalities or races represented among the May immigrants were the Irish (3,528), German (3,105), English (2,598), Scotch (2,556), Italian (1,669), Hebrew (913), French (800), Scandinavian (708), and Dutch (525). These nine races comprised 84.5 per cent of the total newcomers for the month. The other races or peoples contributed less than 500 each. In May, 1929, the principal races were the German (5,654), Irish (3,349), Mexican (2,807), English (2,542), Scotch (2,117), Scandinavian (1,998), Italian (1,965), French (1,548), and Hebrew (970), contributing 22,950, or 89.2 per cent of the total for that month.

Among the aliens who departed in May last, 3,720 were emigrants going abroad for intended future permanent residence, and 17,694 were nonemigrants either leaving after a visit in this country or intending to return after a temporary sojourn abroad. The majority of those permanently departing were English, German, Mexican, Polish, Italian, Scandinavian, and Scotch, emigrants of these seven races numbering 2,127, or 57 per cent of the total for the month.

The statistics for the 11 months ended May 31, 1930, show that aliens admitted who were charged to the quota numbered 132,299, or 58.3 per cent of the total immigrants (226,756) for this period, as compared with a percentage of 53.2 and 50.4, respectively, for the same months of the fiscal years 1929 and 1928.

INWARD AND OUTWARD PASSENGER MOVEMENT FROM JULY 1, 1929, TO MAY 31, 1930

Period	Inward					Aliens debarred from entering ¹	Outward					Aliens deported after landing ¹
	Aliens admitted			United States citizens arrived	Total		Aliens departed			United States citizens departed	Total	
	Immigrant	Non-immigrant	Total				Emigrant	Non-emigrant	Total			
1929												
July.....	20,068	15,740	35,817	37,636	73,453	847	5,086	23,084	28,170	56,339	84,509	1,261
August.....	22,778	19,007	41,785	70,783	112,568	802	5,571	23,723	29,294	70,551	99,845	1,411
September.....	28,020	28,517	56,537	85,946	142,483	719	5,150	21,398	26,548	49,429	75,977	1,205
October.....	26,740	26,072	52,812	47,757	100,569	659	4,907	19,597	24,504	39,767	64,271	1,600
November.....	21,522	14,798	36,320	25,129	61,449	591	3,053	13,345	16,398	20,413	36,811	1,286
December.....	17,842	11,477	29,319	21,177	50,496	571	4,880	18,746	23,626	27,404	51,030	1,546
1930												
January.....	14,767	11,142	25,909	23,985	49,894	630	3,947	20,860	24,807	31,991	56,798	1,275
February.....	13,585	10,706	24,291	34,234	58,525	514	3,180	14,677	17,857	33,796	51,653	1,089
March.....	19,759	15,098	34,857	40,727	75,584	649	2,900	12,759	15,659	37,930	53,589	1,511
April.....	22,261	18,663	40,924	32,115	73,039	757	3,947	14,917	18,864	26,707	45,571	1,850
May.....	19,414	17,526	36,940	25,487	62,427	689	3,720	17,694	21,414	27,593	49,007	1,574
Total.....	226,756	188,755	415,511	444,976	860,487	7,428	46,341	200,800	247,141	421,920	669,061	15,608

¹ These aliens are not included among arrivals, as they were not permitted to enter the United States.

² These aliens are included among aliens departed, they having entered the United States, legally or illegally, and later being deported.

PUBLICATIONS RELATING TO LABOR

Official—United States

ARIZONA.—Industrial Commission. *Fourth annual report*. [Phoenix, 1930?] 17 pp.; charts.

Reviewed in this issue.

CALIFORNIA.—Department of Industrial Relations. *Special bulletin No. 5: Facts about Filipino immigration into California*. San Francisco, 1930. 76 pp.

A summary of this report was published in the June, 1930, issue of the Review (p. 72).

COLORADO.—Coal Mine Inspection Department. *Seventeenth annual report, 1929*. Denver, 1930. 77 pp.

Accident data from this report are published in this issue.

HAWAII.—Board of Trustees, Employees' Retirement System. *Fourth annual report, June 30, 1929*. Honolulu, 1930. 72 pp.

Reviewed in this issue.

LOUISIANA.—Department of Labor and Industrial Statistics. *Fifteenth biennial report, 1929-1930*. New Orleans, 1930. 158 pp.

Wage scales of common labor and semiskilled labor in various industries as of December 31, 1929, taken from the report, are given in this issue. The report includes an industrial directory.

MARYLAND.—Board of Labor and Statistics. *Thirty-eighth annual report, 1929*. Baltimore, 1930. 158 pp.

Data as to child workers in canneries, taken from the report, are published in this issue.

MASSACHUSETTS.—Department of Labor and Industries. Board of Conciliation and Arbitration. *Report, together with the decisions rendered by the board, for the year ending November 30, 1929*. Boston, 1930. 13 pp.

On the whole, there were not so many industrial disputes in the year under review as in any of the past few years, and the great majority of these disputes were quickly adjusted. The board rendered decisions in 39 applications for arbitration, 6 of which had been pending from the previous year.

MISSOURI.—Bureau of Mines. Inspection Department. *Forty-second annual report, 1929*. Jefferson City, [1930?]. 101 pp., illus.

Accident statistics from this report are published in this issue.

OHIO.—Department of Industrial Relations. Division of Labor Statistics. *Report No. 20: Fluctuation of employment in Ohio, 1924 to 1928, and unemployment of males as measured by fluctuation of employment*. Columbus, 1930. Charts. (Reprint from April, 1930, number of *Monthly Labor Review* of U. S. Bureau of Labor Statistics, pp. 31-62.)

PENNSYLVANIA.—Department of Labor and Industry. *Special bulletin No. 15: Safety organizations and accident statistics*. Harrisburg, 1929. 43 pp. (Revised edition.)

Suggests plans of safety organization, and discusses the general qualifications and duties of individuals comprising the safety organization and the preparation and use of accident statistics.

— *Special bulletin No. 30: Proceedings of the Pennsylvania Safety Congress, May 1, 2, 1929*. Harrisburg, 1929. 89 pp.

VIRGINIA.—Industrial Commission. *Biennial report, 1928-1929.* Richmond, 1929. 10 pp.

Reviewed in this issue.

UNITED STATES.—Congress. House of Representatives. Committee on Labor. *Employment of labor on Federal construction work. Hearings on H. R. 7995, a bill to require contractors and subcontractors engaged on public works of the United States to give certain preferences in the employment of labor, and on H. R. 9232, a bill to regulate the rates of wages to be paid to laborers and mechanics employed by contractors and subcontractors on public works of the United States and of the District of Columbia, March 6, 1930.* Washington, 1930. 65 pp. (71st Cong., 2d sess.)

— — — Senate. Committee on Agriculture and Forestry. *Agricultural labor supply. Hearings on S. J. Res. 86, a joint resolution creating a commission to make a study with respect to the adequacy of the supply of unskilled agricultural labor, April 3, 4, 5, and 8, 1930.* Washington, 1930. 119 pp. (71st Cong., 2d sess.)

— Department of Commerce. Bureau of Mines. *Coal in 1928.* Washington, 1930. Maps, charts. (Mineral resources of the United States, 1928, Part II, pp. 423-606.)

Includes data on the mines, production, prices, number of men employed, days worked by mines, length of working-day, output per man, and strikes, suspensions, and lockouts.

— Department of Labor. Employment Service. *Directory of public employment offices.* Washington, May, 1930. 19 pp.

— — — Women's Bureau. *Bulletin No. 74: The immigrant woman and her job.* Washington, 1930. 179 pp., maps.

A study made in 1925 of 1,120 immigrant women in Philadelphia and 1,026 in Lehigh Valley in the hope of getting "from the foreign-born woman herself her reactions to conditions as she finds them to-day in a very small section of the United States." Most of the women studied were in industrial employment, but a second section is devoted to a group of industrial home workers, and a third part deals with some 732 foreign-born women employed during the day and attending the Philadelphia schools at night.

— — — *Bulletin No. 79: Industrial home work.* Washington, 1930. 20 pp.

A brief discussion of the general problem of home work, with some data as to its extent and character, the workers engaged in it, their earnings, and reasons for undertaking it, the hazards to public health involved, and the difficulty of regulating it effectively. The bulletin includes the recommendations made by the committee which the Association of Governmental Officials in Industry of the United States and Canada appointed to look into the question. A list of references for reading is added.

Official—Foreign Countries

AUSTRALIA.—Bureau of Census and Statistics. *Official yearbook of the Commonwealth of Australia, No. 22, 1929.* Melbourne [1930?]. 1074 pp.; maps, charts.

Statistics are included on prices, wages, employment, workers' and employers' organizations, industrial disputes, production, and old-age and invalidity pensions. Some of the data on old-age and invalidity pensions are given in this issue of the Labor Review.

— [Department of the Treasury.] Pensions and Maternity Allowance Office. *Maternity allowances: Statement showing number of claims granted and rejected, expenditure, and cost of administration during the 12 months ended June 30, 1929.* Melbourne, 1929. 3 pp.

Reviewed in this issue.

FINLAND.—*Suomen virallinen tilasto XVIII, A, 45: Teollisuustilasto, vuonna 1928. Helsingfors, 1930. 123 pp. [In Finnish and Swedish, with table of contents, résumé, and table heads in French.]*

Contains statistical information in regard to the industries in Finland during 1928, including industrial employment of labor, value of goods produced, stop-pages of work, etc.

— *Suomen virallinen tilasto XXI, Köyhäinhuoltotilasto, A 32: Suomen köyhäinhuolto vuonna 1927. Helsingfors, 1930. 141 pp.*

Contains information and statistics in regard to the public welfare and charity work in Finland during 1927, including number, age, and former occupation of persons cared for, forms of care, causes of helplessness, etc.

FRANCE.—Ministère du Travail, de l'Hygiène, de l'Assistance et de la Prévoyance Sociales. *Statistique annuelle des institutions d'assistance, 1927. Paris, 1930. lvi, 69 pp.*

This annual statistical report for the year 1927, covering the operations of French relief institutions, includes assistance rendered to the old, infirm, and totally disabled through welfare bureaus, and free medical and hospital aid; care of infants and maternity assistance; aid to large families; and care of the insane.

GREAT BRITAIN.—Government Actuary. *National health insurance: Report on an examination of the sickness and disablement experience of a group of approved societies in the period 1921-1927. London, 1930. 20 pp. (Cmd. 3548.)*

The salient features of this report were summarized in the Labor Review for July, 1930, (p. 93).

— Registry of Friendly Societies. *Report for the year 1929. Part 5: Building societies. Section I.—Proceedings and statistical notes. London, 1930. 33 pp.*

INTERNATIONAL LABOR OFFICE.—*Studies and reports, series A (industrial relations) No. 32: Freedom of association. Vol. V.—United States of America, Canada, Latin America, South Africa, Australia and New Zealand, India, China, Japan. Geneva, 1930. 461 pp.*

— *Studies and reports, series F (industrial hygiene) No. 12: Color vision tests, by Oscar Oblath. Geneva, 1929. 47 pp.*

This report contains an analysis of the color vision tests used in the air, rail, and sea services of various countries. The study was undertaken with a view to establishing an international standardization of color vision tests.

— Director. *Report to the fourteenth session of the International Labor Conference, Geneva, 1930. Part I. Geneva, 1930. 320 pp.*

The section of this report which deals with vocational training is reproduced in full in this issue. Data on relative importance of cooperative organizations in trade in various countries, based on this report, are also given in this issue.

NETHERLANDS.—Departement von Arbeid, Handel en Nijverheid. Directie van den Arbeid. *Ferrosilicium, door Dr. W. Schut. The Hague, 1930. 47 pp.*

Contains an account of an investigation of poisoning by ferrosilicon and measures of prevention in certain industries and occupations in Netherlands.

NOVA SCOTIA (CANADA).—Workmen's Compensation Board. *Report for 1929. Halifax, 1930. 32 pp.*

Reviewed in this issue.

ONTARIO (CANADA).—Workmen's Compensation Board. *Report for 1929. Toronto, 1930. 72 pp.*

Reviewed in this issue.

SCOTLAND.—Committee on Agricultural Cooperation. *Report. Edinburgh, 1930. 45 pp. (Cmd. 3567.)*

Reviewed in this issue.

UNION OF SOUTH AFRICA.—Office of Census and Statistics. *Statistics of production: Statistics of factories and productive industries (excluding mining and quarrying) in the Union for the year 1927-28 (Thirteenth Industrial Census, 1929)*. Pretoria, 1930. xxxix, 74 pp.

In addition to the statistical tables, the report contains a brief review of the position in the leading industries during the year covered.

VIENNA (AUSTRIA).—Statistisches Amt. *Statistisches Taschenbuch für Wien, 1929*. Vienna [1930?]. 62 pp.

Contains statistical information in regard to the city of Vienna for 1929, including public welfare work and public health service, labor conditions, housing, etc.

Unofficial

AMALGAMATED CLOTHING WORKERS OF AMERICA. General Executive Board. *Report to the ninth biennial convention, May 12-17, 1930, Toronto, Canada*. [New York?], 1930. 97 pp.

Discusses the growth of the organization, the changes in the structure and control of the men's clothing industry, the progress of unemployment insurance in that industry, and the union's cooperative undertakings, machinery of arbitration, research department, and health and recreation activities.

AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. *The Annals*, Vol. 149, No. 238: Part I—*The second industrial revolution and its significance*. Philadelphia, May, 1930. 224 pp.; charts.

The five parts of the volume include the following main topics: I. The new economic order; II. Recent economic changes and their meaning; III. The changing international economic order; IV. The individual in the second industrial revolution, including papers on "Men and machines," regarded from the points of view of the engineer, the manager, and the labor leader, and "Trends in industrial psychology"; V. The control of our economic development; and VI. Guiding the developments of the future, including papers on "The effects of the new industrial revolution upon our economic welfare," and "Recent trend in the organized labor movement."

AMERICAN ASSOCIATION FOR LABOR LEGISLATION. *Employment agencies officially exposed; Sworn testimony shows urgent need of State action*. [Analysis of proceedings of New York State Industrial Survey Commission.] [New York?], 1930. 10 pp.

AMERICAN ASSOCIATION FOR OLD AGE SECURITY. *Old-age security progress: Report of proceedings of the third national conference on old-age security, held in New York City, April 25, 1930*. New York, 22 East 17th Street, 1930. 90 pp.

Some account of this conference was given in the Labor Review for June, 1930 (p. 80).

AMERICAN STANDARDS ASSOCIATION. *American standards yearbook, 1930*. New York, 29 West 39th Street, 1930. 104 pp.

BEZANSON, ANNE, AND HUSSEY, MIRIAM. *Wage methods and selling costs: Compensation of sales clerks in four major departments in 31 stores*. Philadelphia, University of Pennsylvania Press, 1930. 405 pp.; charts. (Research study X, Industrial Research Department, Wharton School of Finance and Commerce, University of Pennsylvania.)

The object of the study, as set forth in the introduction, is "to clarify some part of the discussion of wage payment in retail selling. It aims to furnish a detailed record of earnings and output in similar departments in a selected group of representative stores. It considers to what extent the problems of payment are peculiar to each local situation and to what extent stores have a similar problem growing out of like merchandising problems."

BRUGMANS, I. J. *De arbeidende Klasse in Nederland in de 19^e Eeuw. The Hague, Martinus Nijhoff, 1929. 299 pp.*

Contains a historical review of the conditions of laboring classes in the Netherlands in the nineteenth century (1813-1870), including chapters on general economic and industrial conditions, wage earners as producers and consumers, child labor, wages and hours, labor legislation, labor organizations, and labor movements up to 1870.

CASUALTY ACTUARIAL SOCIETY. *Proceedings, May 24, 1929. Vol. XV, No. 32. New York, 75 Fulton Street, 1929. pp. 137-304.*

Contains the papers read or presented at the semiannual meeting of the society, held at Hartford, Conn., May 24, 1929, minutes of the meeting, and other information. The papers include one on recent developments in workmen's compensation insurance rate making.

— *Proceedings, November 19, 1929. Vol. XVI, No. 33. New York, 75 Fulton Street, 1929. 257 pp.*

Contains the papers read or presented at the sixteenth annual meeting of the society, held at New York, November 19, 1929, a list of members, minutes of the meeting, etc. Among the papers was one on "Trade-union benefits and our social insurance problems" and one on the "Relation of accident statistics to industrial accident prevention."

CLARK, VICTOR S., AND OTHERS. *Porto Rico and its problems. Washington, Brookings Institution, 1930. 707 pp., illus.*

A summary of the chapter dealing with country and town workers is given in this issue.

CONDLIFFE, J. B. *New Zealand in the making. Chicago, University of Chicago Press, 1930. 524 pp.*

Beginning with the first effective attempt at settlement in 1840, the writer traces the growth of the new colony, the treatment of the Maoris and the rise of the pastoral industry, the origins of State socialism, the various factors modifying the economic development, the growth of State regulation of wages and working conditions, the influence of woman suffrage in determining the character of such legislation, the State system of public education, and, in general, tries to give a picture of what New Zealand now is and how she became so.

CUNNISON, J. *Labor organization. London, Sir Isaac Pitman & Sons (Ltd.), 1930. 272 pp.*

Deals with trade-union structure and government and trade-union functions, and includes chapters on other varieties of labor organization and function, the international labor organization, and organized labor and the community.

DAVIS, JAMES J., AND WRIGHT, JOHN CALVIN. *You and your job. New York, John Wiley & Sons (Inc.), 1930. 242 pp.*

A collection of informal discussions between the two authors arising from their personal, professional, and official experiences with job problems. Among the chapter titles are the following: Why we work, A job for every one, Choosing your job, Training and education, Getting the job, Your job and your employer, Your job and your home, Your job and your country, Your job and yourself.

DOUGLAS, PAUL H. *Real wages in the United States, 1890-1926. Boston and New York, Houghton Mifflin Co., 1930. 682 pp.; charts.*

Reviewed in this issue.

FRASER, A. J. *Trauma, disease, compensation: A handbook of their medico-legal relations. Philadelphia, F. A. Davis Co., 1930. 524 pp.*

This is a handbook covering the various diseases or types of disability resulting from industrial accidents. The symptoms of the diseases are given and decisions of workmen's compensation boards cited, and the book, therefore, forms a valuable guide in the diagnosis of cases and the equally complicated problem of determination of liability.

HAIDER, CARMEN. *Capital and labor under fascism*. New York, Columbia University Press, 1930. 296 pp.

HEER, CLARENCE. *Income and wages in the South*. Chapel Hill, University of North Carolina Press, 1930. 68 pp.

Reviewed in this issue.

INSTITUT INTERNATIONAL D'AGRICULTURE. *Annuaire international de législation agricole*, 1928. Rome, 1929. 900 pp.

Part VIII of this international yearbook on laws relating to agriculture deals with legislation on agricultural cooperative associations, insurance, and credit.

JOHNSON, ELIZABETH S. *Expenditures for labor law administration*. New York, American Association for Labor Legislation, 1930. 7 pp.

A summary of a study of "Expenditures for the administration of labor legislation in the United States, 1889 to 1927."

KLEIS, FRIEDRICH. *Die Geschichte der sozialen Versicherung in Deutschland*. Berlin, "Arbeiter Versorgung," 1928. 297 pp.

Contains a historical review of public insurance in Germany, including chapters on early history of the care for the sick, disabled, and aged on the basis of public and private charity; the modern public insurance against sickness, accident, old age, unemployment, and death; development of various insurance schemes for certain groups of persons, such as wage earners, salaried employees, miners, sailors, etc.

LINDBERG, JOHN S. *The background of Swedish emigration to the United States: An economic and sociological study in the dynamics of migration*. Minneapolis, University of Minnesota Press, 1930. 272 pp.

MORRIS, VICTOR P. *Oregon's experience with minimum wage legislation*. New York, Columbia University Press, 1930. 236 pp.

NATIONAL ASSOCIATION OF MANUFACTURERS. *Public old-age pensions*. New York, 11 West Forty-second Street, 1930. 86 pp.

Consists of a summary of the arguments used by the National Association of Manufacturers against the principle of public old-age pensions, in the recent hearings before the Committee on Labor of the United States House of Representatives, and a statement of the principles and policies of the association.

NATIONAL CONSUMERS' LEAGUE. *Youth in danger: A study of young workers injured in Georgia industries*. New York, 156 Fifth Avenue, 1930. 12 pp.

A report of injuries to minors in Georgia, prepared from the statistical records for 1927 and 1928 of the Industrial Commission of Georgia. Comments are made on the wages paid to youthful workers, the existing regulations for employment of minors, and the compensation allowed to those injured, all of which are declared inadequate. Changes are suggested for the workmen's compensation act and the child labor act to provide more effective protection. Tables are included showing the age of workers injured during the two-year period, and the compensable injuries to minors, by industry, age, and extent of disability.

PATRONATO NAZIONALE PER L'ASSISTENZA SOCIALE. *Relazione statistica sull'attività svolta nell'anno 1929*. Rome, 1930. 46 pp.; maps, charts.

Reviewed in this issue.

PREUSS, W. *The Jewish labor movement in Palestine, its aims and achievements*. Submitted by the Jewish Socialist Labor Confederation Poale-Zion (united with the Z. S. Federation) to the Labor and Socialist International Congress, Brussels, August, 1928. Berlin N. 24, Verbandsbüro Poale-Zion, Auguststr. 17, [1929?]. 89 pp.

RHYNE, JENNINGS. *Some Southern cotton mill workers and their villages.* Chapel Hill, University of North Carolina Press, 1930. 214 pp.

A careful study of typical cotton-mill villages, and of 500 North Carolina cotton-mill families, including 2,362 individuals over 6 years of age, from whom data were secured by personal interviews. The families were carefully selected to represent as fairly as possible the various types of cotton workers. The study contains a large amount of data bearing on the composition, character, wage-earners, income, and social attitudes of the families. The conclusion is reached that one of the greatest problems of the cotton-manufacturing industry in North Carolina and the whole South is found in its people. "The mills have drawn principally upon the lowest social strata of the white population for their labor force. As a result, a vast converging of undesirable elements has probably taken place." Nevertheless, the writer considers that there are a number of hopeful factors in the general situation, and thinks it probable that the coming generation of North Carolina cotton-mill workers may materially improve their present status.

RICHMOND [VA.] COUNCIL OF SOCIAL AGENCIES. Negro Welfare Survey Committee. *The Negro in Richmond, Va.* Richmond, 1929. 136 pp.

Reviewed in this issue.

ROBINSON, LOUIS N., AND STEARNS, MAUDE E. *Ten thousand small loans: Facts about borrowers in 109 cities in 17 States.* New York, Russell Sage Foundation, 1930. 159 pp.; map.

Reviewed in this issue.

SCHWARZ, SALOMON. *Handbuch der deutschen Gewerkschaftskongresse.* Berlin, Allgemeiner Deutscher Gewerkschaftsbund, 1930. 447 pp.

Contains information in regard to the conventions of the German Federation of Trade Unions, their organization, proceedings, and programs, including such topics as 8-hour day, older workers, amnesty, movement of salaried employees, labor banks, exercises, labor courts, labor laws, trade agreements, training in trades, trade councils, educational work of trade-unions, women's employment in industries, general strike, labor press, rationalization, industrial democracy, etc.

VERBAND DER WEIBLICHEN HANDELS- UND BÜROANGESTELLTEN E. D. *Jahrbuch der Frauenarbeit. Sechster Band.* Berlin, 1930. 136 pp.

Contains information in regard to labor of women in Germany, including chapters on legislation in regard to women engaged in various liberal professions, and annual reports on the activities of various branches of woman labor unions in Germany, with special reference to the unions of female salaried employees engaged in commercial and office work.

WILLIAMS, PIERCE, AND CROXTON, FREDERICK E. *Corporation contributions to organized community welfare services.* New York, National Bureau of Economic Research (Inc.), 51 Madison Avenue, 1930. 347 pp.; map, charts. (Publication No. 16 of National Bureau of Economic Research (Inc.).)

WÓYCICKI, ALEKSANDER. *Histoire des ouvriers industriels en Pologne.* Warsaw, 1929. 273 pp. (Publications de la Société Polonaise de Politique Sociale.) [In Polish, with title page and table of contents in French.]

Contains a historical review of industrial wage earners in Poland, including the workers in the medieval times, the workers in the industrial era, the workers at the end of the nineteenth century, and the workers in the modern large-scale industries. The general surrounding economic and political conditions as well as direct labor conditions, such as wages, hours, etc., in regard to each historical group of workers are dealt with in the volume.

